THE

"Bradshawe" Lecture

ON

NERVOUS AFFECTIONS OF THE HAND.

Delivered at the Royal College of Physicians of London on August 18th, 1881,

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MR. PRESIDENT AND GENTLEMEN,—Before beginning to discuss the subject which I have chosen for the first Bradshawe Lecture, I feel that a few words about him in whose memory this lecture was founded will not be unacceptable.

William Woode Bradshawe studied medicine at the Westminster and Middlesex Hospitals, and became M.D. of Erlangen and M.R.C.S. in 1833, and an Extra-Licentiate of this College in 1841. About this time he was practising at Andover, and married there a widow lady, whose means were sufficient to render him practically independent of his profession. He subsequently moved from Andover to Reading, where he continued to reside till his death on August 18th, 1866. He appears to have made use of his ease and leisure for the cultivation of his mind. He entered at New Inn Hall, Oxford, and ultimately became M.A. and D.C.L. He was elected a Fellow of the Royal College of Surgeons in 1854, and became a Member of this College in 1859. Dr. Bradshawe's professional writings comprised papers on the use of cod-liver oil, on narcotics, and on abdominal abscess. He also wrote upon matters of general interest, and was an occasional contributor to the magazines. Of his domestic character the best evidence is the reverence shown for his memory by his widow. This lady, who survived him some fourteen years, bequeathed to this College, and also to the College of Surgeons, £1000, for the endowment of a lecture upon some subject connected with physic or surgery, to be called the "Bradshawe" Lecture, and to be delivered annually upon August 18th, the anniversary of the death of William Woode Bradshawe. The already existing endowed lectures of this College have been of great service to scientific medicine, and it will be a satisfaction to Mrs. Bradshawe's relatives to know that by founding this lecture, which I have the honour to inaugurate, our munificent benefactress has conferred what cannot but be of permanent benefit to the profession of medicine, and indirectly to the public. It is unfortunate that by the terms of the will the date for the delivery of the lecture has been rigidly fixed for what is nearly the middle of the medical vacation. I feel deeply the honour and responsibility of being called upon to deliver the first "Bradshawe" Lecture, and although I dare not question the judgment of our President, I am very conscious that, in spite of every effort, I can barely hope to justify the choice which he has made.

I have chosen for my subject the "Nervous Affections of the Hand," because I have enjoyed somewhat unusual opportunities of studying them, and the reflections and suggestions which I shall have the honour of making have been prompted by the study of 160 cases which I have seen during the past ten years. I have thought it best to proceed methodically, but in the course of an hour I can do little more than open the subject and lay down some fundamental principles, and I trust to be able to find some future opportunity of completing what I have to say.

For a thorough understanding of the nervous affections of the hand a knowledge of the nervous relations of the hand is necessary. That form of the manifestation of nerve-force which we call the will seems, in its passage to the upper limb, to be in some way intimately connected with certain parts of the brain-crust on either side of the fissure of Rolando in the so-called ascending frontal and ascending parietal convolutions. This area of grey matter lies below the area which influences the lower limb, above that connected with the face, and behind that which seems to influence movements of the head and eye. Of the upper limb area itself, the fore part seems to control extension movements; the middle part, mainly in front of the fissure of Rolando, seems to control adduction, abduction, flexion, pronation, and supination; while the hinder part, entirely behind the fissure of Rolando, is said to control the special movements of the hand. Hitzig, Ferrier, and their followers, have shown that stimulation of these convolutions produces movement in the opposite upper limb, and clinical and pathological observations are daily confirming the teaching of these physiologists. From these convolutions, the will, on its way to the upper limb, seems to pass through the corpus striatum of the same side; thence along the lower layers of the crus cerebri, through the pons, to the anterior pyramid of the medulla oblongata. At this point the fibres forming the will-path divide. The greater part cross over to reach the opposite side of the spinal cord, while the smaller portion proceed direct to the same side of the spinal cord. The crossed fibres occupy in the cord the hinder central portion of the lateral column, while the direct fibres lie close to the edge of the anterior fissure. Between the fourth cervical and first dorsal nerves is the cervical enlargement of the spinal cord, and here those fibres which seem to originate in the grey matter of the brain presumably form connexions with the grey matter of the enlargement, and, issuing from the cord with the anterior efferent roots, they join the afferent posterior roots, and leave the spinal canal to form the brachial plexus. The brachial plexus is a complicated interlacement of nerves, and I have made a hypothetical model of it in different coloured wools in order to show the greatest conceivable complexity which can exist in it. The model is also represented by a diagram. The plexus is formed by the fifth, sixth, seventh, and eighth cervical and the first dorsal nerves, and I have assumed that wherever these nerves effect a junction there is a complete interchange of fibres. The nerves are represented respectively by black, yellow, white, red, and green colours.[1] The fifth and sixth cervical unite, forming a black and yellow cord, and, being immediately joined by the seventh cervical, there results a cord containing black, yellow, and white fibres. The last cervical and first dorsal unite, forming a red and green cord. From the black and yellow nerves come branches which supply muscles used for respiration—viz., the diaphragm by the communicating phrenic branch (*Phr.*), the rhomboids (*Rh.*) which fix the scapula during extraordinary respiratory efforts, and the scaleni (*S S*), serratus magnus (*Post Th.*), and subclavius (*Sub Cl.*), which elevate the ribs. The black-yellow-white and the red-green cords each give off a branch to form the posterior cord of the plexus. This cord possibly contains all the five colours, and from it arise the three subscapular (*Sub Sc.*), circumflex (*Cir.*), and musculo-spiral (*M. S.*) nerves. These nerves, therefore, possibly correspond, as it were, to the whole of the cervical enlargement of the cord. The median nerve (*M.*) in like manner is also formed by a branch from both the inner and outer cords, contains all the five colours, and presumably corresponds to the whole of the enlargement. It is interesting to note that the musculo-spiral and median nerves, which so largely antagonise each other, both presumably are connected with equal lengths of the cervical enlargement of the cord. The musculo-cutaneous nerve (*M. C.*) which arises from the outer cord, and contains only black, yellow, and white fibres, is connected with not more than the upper three-fifths of the enlargement; while the ulnar nerve (*U*), which contains only red and green fibres, is connected with not more than the lower two-fifths of the cervical enlargement. The practical fact to be remembered is this, that the motor and sensory branches of the median and musculo-spiral have relations possibly with the whole of the cervical enlargement, whereas the motor and sensory branches of the musculo-cutaneous represent, as it were, not more than the upper three-fifths, and the motor and sensory branches of the ulnar not more than the lower two-fifths of the cervical enlargement. These speculations, founded upon coarse anatomical facts, receive a large amount of confirmation from the recent experiments of Professors Ferrier and Gerald Yeo. These gentlemen noted the muscles which were made to contract when each of the anterior roots of the nerves forming the brachial plexus of the monkey was stimulated. The result of their experiments was shortly this. No ulnar movement occurred

[1] These colours are represented in the accompanying woodcut by different varieties of shading.

when any of the roots above the eighth cervical were stimulated; no musculo-cutaneous movement followed stimulation of any roots below the fifth cervical, but both median and musculo-spiral movement followed stimulation of the fifth, sixth, seventh, and eighth cervical nerves. These experiments, therefore, bear out the speculation already made that the median and musculo-spiral have a wide origin from the cervical enlargement, while the musculo-cutaneous is limited to the upper and the ulnar to the lower end. One of the effects of such an interlacement of fibres as is found in the brachial plexus is necessarily to scatter, as it were, the influence of the motor cells of the spinal cord, so that the cells of a particular level have a widely diffused action on the muscles of the limb. We may conclude—1. That as many muscles receive their innervation through the cells corresponding with more than one nerve-root, the function of these muscles will remain, in some degree, as long as any of the cells are intact from which any nervous influence is derived. 2. That when the motor cells in a limited area are destroyed the abolition of function is extremely limited, while impairment of function is far more extended.

We are thus enabled to explain what takes place when, at a certain level in the cord, the motor cells in the front horn are destroyed, as in the disease which it is now the fashion to call "anterior poliomyelitis," but which has long been known as infantile or spinal paralysis. In this disease we constantly find, after the acute stage has subsided, a few paralysed muscles surrounded by others which are merely paretic. The paralysed muscles probably derived their entire motor power through the cells which have been destroyed, while the paretic muscles were probably dependent upon the destroyed cells for only part of their motor power. Let us suppose that the motor cells at the level of the first dorsal nerve (*D. 1.*), have been destroyed. We should expect to find in such a case a complete paralysis of some muscles in the hand, while certain muscles supplied by nerves into which fibres of the first dorsal penetrate would be to a greater or less extent weakened. The improvement which always takes place in the paretic muscles in anterior poliomyelitis is probably due to the fact that the power lost is in time compensated by an increased conduction of force through fibres of another colour. The coexistence in infantile paralysis of paralysed and merely weakened muscles is a fact of much practical importance.

Clinical observation has led Remak to think that the motor cells in the cervical enlargement are arranged in functional groups. The group for the deltoid, biceps, brachialis anticus, and supinators he places in the upper part, and that for the extensors of the digits and the intrinsic muscles of the hand in the middle part of the cervical enlargement. A study of the brachial plexus seems to render it unlikely that any limited lesion of the cord would cause complete paralysis of any considerable group of muscles; the structure of the plexus seems designed, among other things, to prevent such a catastrophe. On the other hand, it is likely that a lesion occurring at any of the junctions of the plexus might cause curious combinations of muscular paralysis; and indeed Hoedemaker, who has recorded two cases of Erb's paralysis (deltoid, biceps, brachialis anticus, and supinators), is inclined to place the lesion, not in the spinal cord, but at the point of junction of the fifth and sixth cervical nerves and the fact that faradisation of a spot in the neck close to this point causes simultaneous contraction of the muscles concerned in Erb's paralysis is in favour of Hoedemaker's theory.

The junctions of the nerves are of importance in another connexion. It is well-known that inflammatory action occurring in a nerve may travel in either direction along the nerve trunk, and thus an ascending neuritis may strike a junction and seriously impair the function of other nerves emanating from that junction; records of such occurrences are tolerably common. Weir Mitchell gives the history of Stephen Warner, who was shot through the left chest by a bullet. Three days later the movements of the arm below the shoulder were perfect, the pectoral muscles being alone paralysed. Shortly there ensued a neuralgia which spread to the median region of the arm and hand, and was soon followed by wasting and weakness of the flexors of the forearm and hand. Mitchell thinks that the external anterior thoracic nerve (*Ext. A. T.*) had been wounded, and that neuritis travelling along this nerve reached the external cord of the plexus, and involved the musculo-cutaneous (*M. C.*) and median (*M.*) trunks, which were distinctly tender. Duchenne, Putzel, Cæsar Boeck, and others have recorded similar cases. Inflammation once set up in a nerve seems to have a potentiality for evil not unlike that of a clot in an artery or vein.

It must not be forgotten that the nerves of the brachial plexus, as they issue from the spinal canal, form connexions with the sympathetic chiefly by branches from the inferior cervical ganglion. The many trophic changes occurring in the upper limb in consequence of nerve lesions give importance to this connexion between the nerves of sensation and muscle-motion and those of vessel-motion.

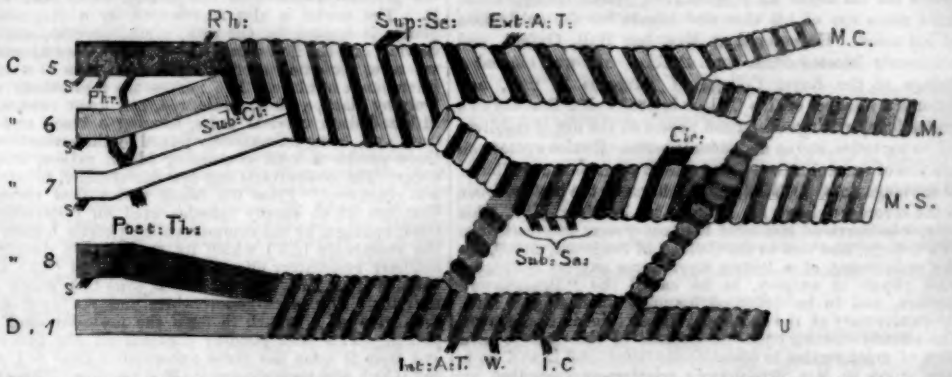

Diagram of the Brachial Plexus. The colours of the original diagram are represented by varieties of shading, thus:—*C 5*=black; *C 6*=yellow; *C 7*=white; *C 8*=red; *D 1*=green.

It is not necessary to dwell upon the origin and distribution of the nerves of the arm and hand. A few words may be said, however, upon the effect of paralysis of these nerves on the attitude and movement of the hand. When the median is paralysed we get an abolition of pronation and grasp (except in the ring and little fingers). The near phalanges can still be flexed by the interossei, and owing to the unopposed action of these same muscles the mid and far phalanges are liable to be over-extended and curved backwards. It is the median nerve which confers what may be called the human functions on the thumb, and when it is paralysed the thumb cannot be abducted or opposed; the first and second metacarpal bones lie in the same plane, the thumb looks directly forwards, and we get what Duchenne called the "ape's hand." In paralysis of the musculo-spiral we get loss of supination and extension, which is total in the wrist and thumb and partial in the fingers—i.e., the near phalanges cannot be extended, but the mid and far phalanges can still be extended by the interossei. The ulnar nerve is the nerve *par excellence* of delicate manipulation. It supplies all the intrinsic muscles of the hand, except the two outer lumbricales, the opponens, abductor, and outer head of the short flexor of the thumb. All the ulnar muscles acting together give a conical shape to the hand, like that observed in tetany. When the ulnar is paralysed, sewing, writing, and all delicate manipulation become impossible.

The patient cannot move the fingers to and fro in the same plane. The mid and far phalanges cannot be extended, nor the near phalanges flexed, and the patient cannot make a billiard bridge. After a time the hand, by the unopposed action of the flexors and extensors of the fingers, becomes "clawed"—i.e., the near phalanges are extended, while the mid and far phalanges are flexed. I need not specify the well-known areas in the hand which cease to feel when either of these nerves is paralysed. I will merely say that motor function is always more easily abolished than sensory function; that, in cases of recovery from damage, sensation invariably returns before motion; and that occasionally sensation will return in a nerve area, notwitstanding the continued severance of the nerve-trunk. It must be remembered that anastomoses of the sensory branches of the three nerves of the hand exist on the back and palm and on the pulps and along the edges of the digits, and that MM. Arloing and Tripier have proved that the "persistence of sensibility" in nerve-areas after division of the nerve itself is due to the conduction of sensory impressions (by means of these anastomoses) through the trunks of nerves which remain entire.

There are some purely mechanical conditions in the hand which are liable to lead to misconceptions as to the power of certain muscles. The fingers and the wrist-joint each have their own flexor and extensor muscles, which act independently of each other; and it is obvious that the state of the wrist-joint, whether flexed or extended, must influence the tautness or slackness of those tendons which, having no attachment to the wrist, pass over it to flex or extend the fingers. When the wrist is in an extreme degree of flexion or extension those tendons which run over the convex side of the joint are taut, while those which run over the concavity are slack; and this tautness or slackness of the extensor or flexor tendons of the fingers is, be it observed, quite independent of any action on the part of the extensor or flexor muscles of the fingers. The fingers can be extended with greater ease and completeness with the wrist flexed than with the wrist extended; and, indeed, when the wrist is fully extended, a complete extension of the fingers can scarcely be accomplished, and the attempt causes great fatigue-pain in the palm, owing to the efforts of the interossei and lumbricales. The cause of this difficulty is clear enough. When the wrist is fully extended the tendons of the extensors of the fingers are slack, and this has to be overcome before extension of the near phalanges can begin. Hence part of the difficulty. At the same time the flexor tendons are taut, and tend, quite mechanically, to flex the mid and far phalanges. This is a second obstacle to complete extension of the fingers with the wrist extended. It is the interossei and lumbricales combined which extend the two end phalanges, and the lumbricales seem especially designed to overcome the obstacle offered to complete extension of the fingers by extension of the wrist. These muscles arise from the tendons of the flexor profundus, and are inserted with the interossei into the aponeurotic expansion on the back of the mid phalanges. When therefore they contract, they tend, by one and the same action, to slacken the far ends of the flexor tendons and to tighten the far ends of the extensor tendons. They thus permit extension by their action on the flexor tendons, and actively produce it by their action on the extensors. I am not aware that this view of the action of the lumbricales has been previously stated. The interossei and lumbricales have also the power of moving the fingers from side to side; but it must be remembered that, as the tendons of the extensors radiate to a slight extent from the wrist-joint, the fingers tend to separate from each other during the full action of the extensor communis digitorum. This may be mistaken for true interosseal action.

We are now in a position to discuss the effects of diseases at various points of the nervous system upon the form and functions of the hand. Beginning at the highest point, we will consider first the effect of diseases of the brain-crust. There seems to be no doubt that a lesion of the upper limb convolutions in one half of the brain is capable of causing trouble in the upper limb of the opposite side, and what are called "brachial monoplegias" have been reported tolerably often. They are most common in tubercular meningitis and syphilis, which when it attacks the brain often affects the cortex. According to Landouzy, who has studied the subject of cortical paralyses, these paralyses are characterised by the following peculiarities:—1. They are partial and limited to any extent—i.e., we may have paralysis of only one limb, or of part of one limb. 2. They are very often incomplete—i.e., weaknesses rather than palsies. 3. They are often transitory. 4. They are variable—i.e., the area of the paralysis tends to get smaller or larger.

Landouzy has collected over 100 cases from various sources which seem to support the theory that motor functions are localised in particular convolutions. Among them, however, are not many cases of arm palsy, and of these most were hemiplegic in the first instance.

In a case of congenital absence of the right hand recorded by Gowers, the right ascending parietal convolution at its middle third was found to be smaller than its fellow on the left side, measuring transversely only ·35 in. as against ·65 in.

In a case of congenital absence of the right hand which I lately had an opportunity of seeing, by the courtesy of my friend Mr. Barwell, in the Cripples' Home, Marylebone, there was a very noticeable inequality in the size of the two halves of the skull, that opposite to the absent hand being very much the smaller. A diagram made from measurements taken with a cytometer showed this clearly, but the difference was far more apparent to the eye than the diagram would lead one to suppose.

In another case of congenital absence of one hand which I saw a few weeks since at Andover, the head appeared to be perfectly symmetrical, but I had no opportunity of measuring it.

Hahn has recorded the case of a young man of twenty who had a weakness of the first three fingers of the right hand, for which he sought advice on August 11th. He then became epileptic and died comatose on August 30th, without any extension of the paralysis. Post mortem a part of the cortex of the left hemisphere "towards its hinder third" was found hardened and of a yellowish colour over an extent of 2 in. by 1 in.

Cotard in 1868 recorded the case of an old woman in whom an old paralysis of the left arm was found to correspond post mortem with an atrophy of the convolutions at the upper end of the right fissure of Rolando.

Bourdon, Rosenthal, Ringrose, Atkins, and others, have put similar instances upon record, so that the fact of the connexion of certain convolutions with the upper limb may be regarded as clinically established.

I have only had one case in which I have had reason to suspect a cortical lesion, and in this the hand was mainly affected. A gentleman, aged thirty-eight, actively engaged in literary pursuits, was much occupied in looking over many hundred examination papers. In order to get through this work by a certain time, he sat up at nights and goaded his brain with tea, coffee, and other stimulants. He was "taken ill," and his queer state attracting the attention of his friends, I was sent for about thirty-six hours after the attack. The right hand was distinctly paretic. The patient could move the right leg well enough, but he afterwards stated that when first attacked there was a difficulty in moving the leg. The right side of the face drooped perceptibly. Speech was unaffected. The patient was quietly delirious, but answered some questions fairly well, and knew me perfectly. He had pain on the left side of the head, and was possessed by a fixed delusion that an insect had taken possession of his left frontal sinus, and was trying to work its way into his nose. (He had studied anatomy.) The urine contained a trace of sugar. In a week or so he was practically well enough to go a long voyage alone. There is now, ten and a half years after the attack, not a trace of paralysis about him except that his handwriting is not so firm as it was. I believe this to have been a congestion of an overworked cortex, possibly accompanied by a minute hæmorrhage.

When, instead of the cortex, the corpus striatum is affected, we are confronted with an ordinary case of hemiplegia, which need not be discussed. In ordinary cases the hand suffers more than the leg, and is the slowest to improve.

(To be concluded.)

TESTIMONIAL.—On the 22nd ult. the officers and attendants of the Somerset and Bath Lunatic Asylum presented Dr. Medlicott, who has just resigned the superintendency of the institution, after having held it for twenty-one years, with a testimonial consisting of various articles in oak and silver. The present was accompanied with a letter from the donors expressing their sense of the uniform kindness they had received from Dr. Medlicott, and their best wishes for his future happiness.

ON HOSPITALS:

THEIR MANAGEMENT, CONSTRUCTION, AND ARRANGEMENTS IN RELATION TO THE SUCCESSFUL TREATMENT OF DISEASE, WITH REMARKS ON THE ORGANISATION OF MEDICAL RELIEF IN THE METROPOLIS.

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CLASSIFICATION OF HOSPITALS.

CLINICAL HOSPITALS.

By clinical hospitals I mean hospitals attached to medical schools, which need, therefore, to be fully organised for the purposes of practical instruction in all branches of medicine. They should be provided with physiological and pathological laboratories, and be armed with all the means of conducting scientific inquiries—be, in fact, schools of research, as well as of technical teaching. The difference needed in their structural and other arrangements, as respects the sick, are greater space in the wards for clinical teaching, more complete classification of disease, the careful selection of typical cases, and special provisions for nursing and the admission of students to learn their profession. All classes of cases should be admitted to them, except infectious fevers; and a certain proportion of incurable disease should always be found in the smaller rooms annexed to the principal wards. They should have special facilities for the treatment of ophthalmic affections and skin diseases, and a small detached obstetric clinique, as in the Menilmontant and St. Eloi Hospitals.

The primary intention of hospitals should never be sacrificed in them to the schools to which they belong; nor should the system of clinical teaching and nursing be permitted to become a source of annoyance to the patients further than is absolutely necessary. The Scottish infirmaries, hereinbefore mentioned, are models in these respects.

The whole question of clinical instruction and its proper regulation, as well as the relations of medical schools to hospitals, appears to me to demand special inquiry, and to be considered also in its relation to the proper organisation of medical relief in all great cities.

The instruction itself, should, I venture to think, be graduated, the student being first sent to the out-patient department to learn the physiognomy of disease, and the proper methods of examination for its diagnosis and detection. When he has shown himself by examination to be competent to perform this duty, he should be allowed to enter the clinical wards of general hospitals, and not until then. A student engaged in actual attendance upon the sick should not be occupied in dissection, and when engaged in pathological examinations the most scrupulous attention to the prevention of his carrying with him any possible means of injury to the sick should be strictly enforced.

The last stage of instruction should be in the clinical hospital. The number of sick in a clinical hospital should not exceed 200, for within this limit every type of case and disease could be gathered together by the proper organisation of the system of admission to all such institutions.

GENERAL HOSPITALS.

By general hospitals I understand all institutions not directly connected with schools of medicine, maintained by public subscriptions, and which are in their character essentially private charities. They should, I am of opinion, contain provision for the treatment of all classes of disease and accident, including infectious fevers, and be constructed and arranged on the same principle as clinical hospitals, omitting the provision necessary for clinical teaching and for the scientific investigation of disease. In this category of hospitals should be placed the great separate Poor-law infirmaries, and they should, under proper regulations, and with due provision for the maintenance of the privacy essential to their good government, have the services of a small staff of clinical clerks and dressers to assist the surgeons and physicians, and to aid to this extent in the practical training of the future medical practitioners of the country.

Their size should be proportioned to the needs of the population for whose benefit they are intended, and they should be placed in such positions as to secure to the poor within a radius of one or two miles, according to density of population, medical aid in the hour of need, without having to travel too far to seek it.

They should not contain a greater number of beds than 300, nor less than 100, for within these limits all varieties of cases, surgical and medical, including lying-in and fever wards, can, by proper arrangement, classification, and separation, be contained.

We have not at present any reliable statistics to show the proportionate incidence of sickness to population in a given area, and indeed it would be difficult to frame a fixed rule on the subject from the very different conditions in which the closely-packed poor live in the great centres of industry. Now, however, that, under the operation of special Acts of Parliament, large portions of many great cities are so dealt with as to displace great bodies of the poor, wherever they are compelled to remove, due provision for their medical relief in the new locality should, I think, be compulsory. If in that case they are still closely surrounded by habitations, and land is too valuable to admit of an adequate amount being obtained for a hospital on the pavilion plan at reasonable cost, it would be better to erect one after the design of that of New York, than to leave them, as they are at present compelled, to seek relief for sickness in old and unsuitable institutions at great distances. To effect this Mr. Booth of Manchester, who has had considerable experience in hospital construction, and who thoroughly understands the sanitary principles which require to be observed in their arrangement, has kindly prepared for me the accompanying plan of a town hospital on the New York lines, to contain 200 sick of all classes, medical and surgical, with a few beds for lying in women, and provision for the immediate and effective separation of cases of septicæmic disease which may accidentally be brought to, or arise in, the hospital wards.

The accompanying illustrations show the distribution of these wards, and in the foot-note[1] are the references to indicate the purpose of each division.

The proposed building would be five-storied, as are some of the older London hospitals at present. On the ground-floor are the various offices and their dependencies, the out-door patients' departments, small obstetric and erysipelas wards, mortuary, ambulance shed, &c. In the basement, or cellar floor, the coal cellars, steam boilers, &c.

On the first, second, and third floors would be placed the ordinary sick of all kinds, both sexes, and all ages, classified and sub-divided in any way that might be deemed necessary or expedient. Provision in the plan is made for thirty beds in each of the long wards, but these should be subdivided and broken into smaller and more manageable groups for purposes of classification or separation, in strict consistency with the general plan of the building, so as to secure adequate superficial and cubical space for each patient, with suitable light and efficient ventilation.

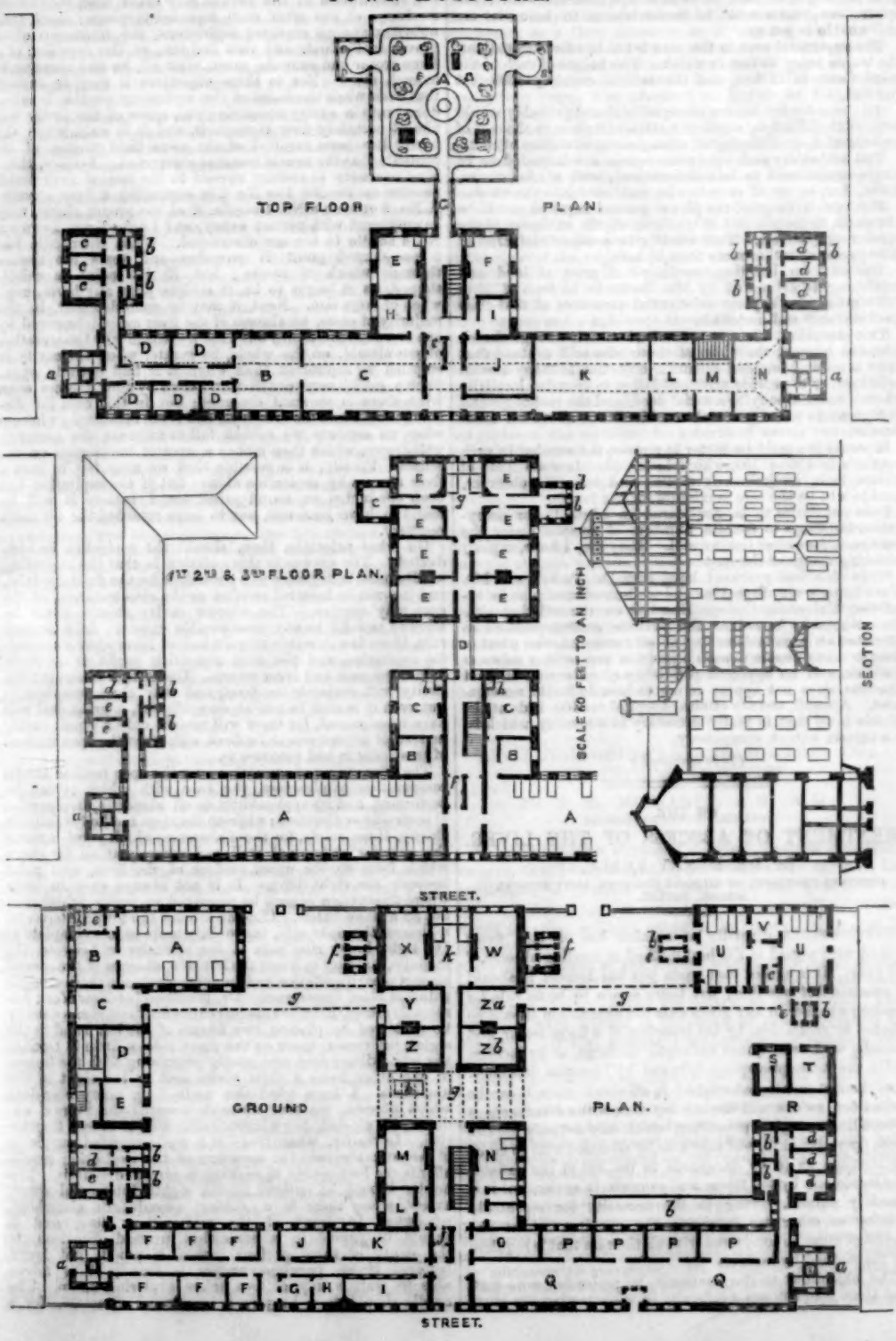
On the fourth and fifth floors are placed the kitchen, laundry, and their usual annexes, together with a summer

[1] *Top floor.*—A, summer and winter garden; B, scullery; C, kitchen; D, store-room; E, nurses' dining-room; F, servants' dining-room; G, gangway; H, pantry; I, consultation-room; J, operation-room; K, general washhouse; L, officers' washhouse; M, stove; N, laundry; *a*, staircase from ground to top floor, and for occasional use in connexion with wards, with lift for stores, &c., in centre of same; *b*, water-closets, &c.; *c*, dry goods store; *d*, linen rooms; *e*, patients' lift.

First, second, and third floor plan.—A, ward for 30 beds; B, nurses' room; C, patients' dining-room; D, gangway; E, room for use of staff; *a*, staircase from ground to top floor, and for occasional use in connexion with wards, with lift for stores, &c., in centre of same; *b*, waterclosets; *c*, bath-room; *d*, sink; *e*, lavatory; *f*, patients' lift; *g*, officials' staircase; *h*, dinner-lift to and from kitchen.

Ground plan.—A, lying-in ward; B, labour-room; C, nurses' room; D, post-mortem room; E, mortuary; F, probationary ward; G, porters' room; H, porter's bedroom; I, dispensary; J, secretary's office; K, waiting-room; L, secretary's private office; M, board-room; N, accident ward; O, store-room; P, consultation-room; Q, out-patient's department; R, ambulance shed; S, stable; T, room for disinfection; U, infectious ward (erysipelas); V, nurses' room; W, medical officers' room; X, assistant medical officers' room; Y, matron's room; Z, weighing machine room; Zz, room for nurses attending in infectious wards; *a*, staircase from ground to top floor, and for occasional use in connexion with wards, with lift for stores in centre of same; *b*, waterclosets, &c.; *c*, bath-room; *d*, lavatories; *e*, sink; *f*, outside waterclosets, &c.; *g*, covered way; *h*, weighing machine; *j*, patients' lift; *k*, officials' staircase; *l*, inclined plane down to basement.

TOWN HOSPITAL.



and winter garden, in lieu of the day-rooms, which ought to be provided in every hospital for the sick directly they are able to leave their beds, so as to escape from the ward atmosphere—as great a relief to themselves as to those who are still unable to get up.

The superficial area in the plan is 125 feet for each patient, the wards being 30 feet in width. The height of each of the ward floors is 12 feet, and the cubical capacity 1500 feet per bed.

All these conditions are susceptible of and probably would require modification, without material increase to the cost of construction, or difficulty of arrangement of classes of sick.

The midwifery and erysipelas wards are intended to be single-storied and to be self-contained, with all lavatories, baths, &c., so cut off as not to be ventilated into the wards.

For such a hospital the plot of ground required would be 112 yards in length and 55 yards in depth, exclusive of the surrounding streets. This would give a superficial area of 6160 yards, or rather more than 1¼ acre.

The cost for building, exclusive of price of land and furnishing, is estimated by Mr. Booth to be from £120 to £125 a bed, for a plain substantial structure of first-class workmanship and materials.

This plan, then, as respects details, is merely a rough sketch intended to meet the views of those who still contend that there is no well-founded scientific objection to many-storied buildings, or to provide accommodation in crowded localities where a hospital may be a social need, and the cost of ground so high as to raise financial considerations above all other reasons.

It would probably be better to restrict the number in such hospitals to 150 or 100, which latter, Mr. Lawson Tait of Birmingham, an eminently skilled and scientific observer, considers to be the safe maximum for the future.

I do not desire to be considered an advocate for many-storied buildings to contain numbers of persons under the same roof, for either sick or well. They are, I hope, rapidly becoming things of the past.

Since this was written I have seen Dr. Poore's and Mr. Waterhouse's very ingenious and well-considered plan for rebuilding University College Hospital on the existing site. The attempt to introduce the pavilion arrangement on so restricted an area is deserving of all commendation; but to place so many people in such a position and with a mews at the back, and no apparent possibility of extension in that direction, does not appear to me to be a desirable arrangement. A small, strictly clinical hospital for 100 beds at the outside is all that is really necessary in a locality which is, to a certain extent, compulsory.

(To be continued.)

ON THE

TREATMENT OF ABSCESS OF THE LIVER.

By DR. HENRY VEALE,

ASSISTANT PROFESSOR OF MILITARY MEDICINE, ARMY MEDICAL SCHOOL, NETLEY.

CONSIDERABLE diversity of opinion has of late years existed with regard to the best method of treating abscess of the liver. It is agreed that when pus has formed it should be evacuated if possible; but there seems to be no rule for deciding whether in any given case the evacuation should be effected by aspiration, by the insertion of a large trocar and cannula, with subsequent antiseptic drainage, or by incision under the antiseptic spray, followed by Listerian dressings. That the last-mentioned method is effectual, when it can be carried out, no one will doubt; but it has the disadvantage of entailing a surgical procedure, which may not only require much operative skill, but may also be attended with so much hæmorrhage as to be dangerous to the life of the patient. The treatment by the trocar and cannula is easier, but it is certainly painful, owing to the necessity for repeatedly dilating or otherwise enlarging the opening, whilst the dressings must be conducted with all the care that is required for the method by incision.

The objections to the treatment by aspiration are—first, that there is sometimes a difficulty in withdrawing the purulent matter through the aspirating needle; second, that the operation must be repeated more or less frequently, and that the constitution of the patient may suffer from the profuse discharge of pus after such repeated tappings; third, that notwithstanding repeated aspirations, the treatment often proves ineffectual, and that incision, or the insertion of a large trocar and cannula, must, after all, be had recourse to in such cases. But to these objections it may be replied that even when the finest of the aspirating needles is introduced into a cavity containing pus, some of the latter will almost certainly flow through it, and it is only when the cavity has been emptied of the more fluid portion of its contents that the needle becomes obstructed. Besides, there is no necessity to restrict oneself to the use of such small needles as the No. 1 or No. 2 in aspirating a liver abscess. A No. 3 or even a No. 4 needle, if of the proper shape, may be employed with perfect safety, and I have never known a No. 4 needle to become obstructed. When the needle has a pen-shaped point it stretches and tears the tissues through which it passes; but if its point is chisel-shaped, as it ought to be, it seldom does any harm, even when of large size. Next, it may be conceded that, in the majority of cases, an abscess of the liver cannot be cured by one or two aspirations; but I see no reason why the secretion of pus should, on the whole, be greater when the cavity is emptied by aspiration than when it is laid entirely open. Such a cavity must contract and close by slow degrees even when there is constant drainage; but in this case the discharge soaks into the dressings, and is not measured; whereas when we aspirate we seldom fail to measure the quantity withdrawn, which then makes a greater impression on our senses. Finally, it is possible that we may fail to cure a liver abscess by aspiration alone; but if the aspiration has been conducted on sound principles, I believe it will be found to have hastened, not to have retarded the ultimate recovery.

On what principle, then, should the aspiration be conducted? The answer to this question is that the aspirating needle must be regarded as a substitute for the drainage-tube, and it must be inserted as often as the circumstances of the case may require. The abscess cavity should never be allowed to refill to any considerable extent. As a general rule, there is a decrease of pain and of fever after a successful aspiration, and the next aspiration ought to be made before the pain and fever return. Under this treatment the cavity will certainly contract, and may close completely; but even if a cure be not at once effected, a great deal will have been gained, for there will remain only a small cavity instead of a large one to be dealt with when the open method of treatment is had recourse to.

The advantages of aspiration over the open method are its comparative painlessness, the ease with which it can be performed, and its applicability to all abscesses, irrespective of their site or direction; whereas the open method is suitable chiefly, if not solely, for those abscesses which point towards the anterior abdominal wall, and scarcely at all for those which form on the upper surface of the liver, and point towards the right lung. It is not always easy in cases where fluctuation cannot be perceived to decide whether or not an abscess exists. Œdema around the lower intercostal region on the right side, immobility more or less complete of the right lower ribs, pain in the shoulder or between the scapulæ, inability to lie on the left side, absence of the special signs of pleuritic effusion and the antecedents, are the diagnostic points of chief importance. Dr. Hammond of New York has recently stated that when abscess exists fluctuation can usually be perceived by placing two fingers of the left hand in the eighth intercostal space on the right side, a little in front of the mid-axillary line, and gently percussing with the fingers of the other hand a little above and to the right of the umbilicus. I have tried this method on many occasions where abscess, pointing upwards towards the thorax, undoubtedly existed, but without being able to detect fluctuation. In reality, when there is a well-grounded suspicion of hepatic abscess, the insertion of the aspirating needle affords the best means of making a correct diagnosis. The needle should be entered in the eighth intercostal space, except when there is a distinct prominence elsewhere, somewhat in front of the mid-axillary line, and it should be passed in a somewhat upward direction, to the depth of three or four inches, if pus is not found before. If no purulent matter is found, it is advisable to wait a day or two before exploring again. The needle should then be passed in another direction, for a

negative result cannot be accepted as proving that no abscess is present if the general and local symptoms continue. When there is no fluctuation to indicate its precise spot, the aspirating needle may quite easily pass close to a large cavity without penetrating it. This is, perhaps, one objection to the treatment of hepatic abscess by aspiration. It does not of itself show, in the case of deep-seated abscesses, when the cure is completed. We must then be guided by the general condition of the patient. If he remains free from pain and from any abnormal rise of temperature, if he regains his appetite, weight, colour, and strength, and feels in all respects well, I think we are as much justified in considering the cure complete as if a similar result followed the open method of treatment.

In illustration of the preceding remarks I will now briefly record two cases, one of which was recently treated in the clinical wards at Netley, the other in India by Dr. W. J. Fawcett, A.M.D.

CASE 1. No. 1080.—Private C. D. ——, 44th Regiment, aged twenty-three, first began to suffer from hepatic disorder in July, 1880, when he was stationed in Burmah. He was invalided home, and when he came under my observation, early in April, 1881, he was complaining of considerable pain in the hepatic and interscapular regions, and was unable to lie on the left side. He was greatly emaciated; his pulse was about 90 in the morning and about 105 in the evening; whilst his temperature ranged from about 98·4° to 100° and 101° at the corresponding times. His right chest, from the fourth rib downwards, was almost motionless in respiration. Here there was also marked dulness on percussion, absence of respiratory sound, and diminished vocal vibration. Posteriorly, the same signs existed below the level of the angle of the scapulæ. Three inches below the nipple the right chest measured seventeen inches; the left sixteen and a half. Three inches lower than this the right circumference was eighteen inches, the left sixteen. Over the lower part of the dull region there was some œdema of the integument, but no fluctuation could be detected by any method of examination. He had never had dysentery, and he was not troubled with diarrhœa. Professor Maclean saw the patient with me, and after reviewing all the circumstances of the case, it was decided that the treatment by aspiration should be had recourse to. Accordingly, on the 11th of April, a No. 2 aspirating-needle was introduced in the anterior axillary line between the seventh and eighth ribs on the right side, to the depth of about three inches, and forty-eight ounces of a reddish purulent fluid were withdrawn. For nearly a week from this date his temperature never rose above 99° Fahr., and the circumference of his right side diminished considerably. For some days after this it escaped my attention that his temperature had begun to rise again, and the operation was not repeated until the 26th of April, but on this occasion the needle did not enter the abscess, and no pus was withdrawn. On the 28th of April I inserted the needle again in the seventh interspace, and succeeded in withdrawing sixty ounces. After this his temperature again fell to normal, and it never afterwards rose above 99° Fahr. On May 3rd I reintroduced the needle as nearly as possible in the same spot, but with a negative result. On the 6th of May the operation was repeated, but again unsuccessfully. On the 8th of May I passed the needle between the sixth and seventh ribs, and removed ten ounces of semi-purulent fluid. On May 13th I tapped him again, this time in the seventh interspace, and withdrew ten ounces more. The fluid withdrawn had presented the same characters throughout, being composed of pus-cells, serum, broken-down hepatic tissue, fat-globules, and red blood-corpuscles, more or less changed, and I was guided in selecting the site for puncture by the extent of the respiratory sounds and of the dulness on percussion. By this time the patient's aspect had completely changed, all fever and pain had ceased, and he was recovering health and strength every day. The circumference of the lower part of the right chest was now smaller by half an inch than that of the right, and the cure seemed to be complete. However, in order to be as sure as possible, I passed a needle into the seventh space on June 2nd, and as no fluid was withdrawn, again entered it in the sixth interspace, but with a similarly negative result. After this I waited another week, and then, on the 10th of June, I introduced a No. 2 needle in the eighth interspace, and passed it diagonally towards the upper centre of the liver for about three inches and a half. Nothing but pure blood was extracted, and as the man had now more than regained the weight that he had lost, and was in excellent health, I thought it unnecessary to make any further explorations. He left the hospital on the 5th of July to resume his original occupation as a farm labourer, as it was not deemed advisable that he should return to the ranks with the possibility of being sent back to a tropical climate.

CASE 2. No. 1861.—Private F. E——, 14th Hussars, aged twenty-four years, was admitted at Netley on May 10th, 1881, and the following is the statement of his case, as communicated to me by himself. On September 29th, 1880, he was sufficiently strong and well (although he had not long previously suffered from dysentery) to take part in the regimental sports at Bangalore, in the Madras Presidency. On the following day he was seized with sharp pain in the hepatic region, and he was so ill on October 1st as to be obliged to go to the hospital. On October 10th he was aspirated by Dr. Fawcett, the needle being entered in front, to the right of the middle line, and about an inch and a half below the costal margin. Eight ounces of pus were withdrawn. On the 12th seven ounces and a half were removed in a similar way. On the 14th six ounces were removed. On the 20th three ounces and a half were drawn off; and on the 25th the aspiration was repeated, and one ounce and a half came away. On the 1st of November he was tapped once more, but no fluid was withdrawn. When he arrived at Netley there was a slight prominence over the hepatic region, below the costal margin, and to the right of the mesial line, into which I passed an aspirating needle on the 17th of May, quite into the centre of the swelling, for a depth of nearly two inches and a half, but not a particle of pus flowed out. He was discharged from hospital on the 5th of June, fit for any occupation in civil life, although deemed unfit for further army service.

In this case, the treatment of which by Dr. Fawcett appears to me to have been perfect in every respect, the cure was effected by aspiration in less than three weeks. It is true the abscess was situated in the spot most favourable for any method of treatment; but the case is valuable, as showing that for months after the cure of a liver abscess the part originally affected remained sensitive to pressure and somewhat tumid, although it contained no pus. In fact the condition of the part was similar to that which often follows upon the emptying of a hydatid cyst by aspiration, but, as far as my experience goes, no better results are obtained by the open method of treatment.

Netley.

LISTERISM—SIMPLE APPLICATION OF, TO RECENT INJURIES.

BY T. B. MORIARTY, A.R., M.D.,
BRIGADE-SURGEON, HALF-PAY.

So much has been written of the good effects of antiseptic surgery, that I only intend, by recording a few cases of its application to gunshot and other injuries, to add to its farther value from my own experience, as well as at the hands of other military surgeons by whom I have seen it applied.

On the outbreak of the Afghan war of 1878 I had charge of the wounded of the first field force division at the base hospital at Peshawur after the attack on Ali Musjid. The wounded were injured in the head, or most frequently in the arms. Of this number I will give a brief detail of two cases.

CASE 1.—Bombardier George S——, Royal Artillery, a man of good muscular development, was admitted for a gunshot wound and fracture of the middle of the right arm. He was engaged before the enemy, and while limbering up the gun, which was placed about 1300 yards from the fort, he received a bullet-wound on the outside of the arm, which fractured the bone, and made two apertures on the upper and outer surface. The arm was rendered wholly powerless, and every little movement gave great pain. Small pieces of bone were protruding, and the parts around the apertures were slightly swollen. In this case there was a consultation of medical officers as to whether or not it would be advisable to amputate. He would be a long time in hospital, there would be a good deal of suppurative action, and at best there was reason to doubt that even if he re-

covered his arm would be of any use. The man himself pressed me to operate at once, and he was not to be put off by any unwillingness I showed. He prevailed on the chaplain and others to have his request complied with. The amputation was declined on the plea that unless there was loss of sensation, great muscular destruction, or loss of blood, it would be better to give conservative surgery a fair trial. In this case we had to face the danger of septicism, with broken bones, and large open wounds. This was to be apprehended. Still, as he was apparently in a good state of health, it was considered advisable to try to save the arm. He had a morphia draught, and the wounds were plugged with lint steeped in carbolic oil (1 to 20). After a few days' rest on a pillow the arm was supported in an excision splint, to which there was screwed a straight splint, for the purpose of giving some support to the arm from the elbow to the shoulder. The wound was occasionally syringed with carbolic lotion. For five months there was no change made in the treatment, and I think a good recovery may be altogether attributed to the use of carbolic applications, careful dressing, and the support given to the arm. As may be imagined from the severe nature of the injury, there was a large amount of suppuration; but neither in this nor in any other case of gunshot wound did I use anything else than lint to plug, clean, and dry the surfaces. The progress of the case may be thus briefly summed up. Large pieces of bone had been from time to time extracted. The two openings in the upper surface formed into one; these were with difficulty united, and before this result took place it was observed that one would heal up for a few days and then burst out again, clearly indicating an irritable condition beneath. There was some puckering of the edges of the outer wound, together with a considerable denudation of the bone. Five months after the receipt of the injury he was invalided. His condition then was as follows: there was some muscular wasting of the arm and forearm, which was attributed to disease; the union of the inner and outer surface of the seat of fracture was complete, although the upper wounds were covered with a delicate skin; there was some bare bone beneath; he had perfect sensation, slight grasping power, and was able to raise the hand on a level with the breast and keep it in this position for a few minutes. During his stay at Rawul Pindi, *en route* to England, he got a fall and broke his arm in the site of the original fracture. When I saw him four months afterwards at the Murree Sanitarium, to which place he was sent, his arm presented the same condition as it did in March (five months previously). The fracture was firmly united; a small sinus from which there was a serous discharge appeared at the posterior edge of the outer wound; he had his arm supported in a sling, and he was finally invalided from the service at Woolwich on the 16th June, 1880. In his letter of the 2nd February, 1881, he says, "I am in the best of health; the arm is getting stronger, but the wound still keeps running. I am forced to do some work, for my pension will not keep me." He was then employed as a daily labourer. All who saw this case or knew anything of its history have regarded this as a typical case of conservative surgery. My experience of injuries received in warfare is that too much value cannot be placed on rest and the early administration of opiates.

CASE 2.—Trumpeter W. H—— was admitted for a lacerated shell wound of the outer side of the left forearm, which he received while bending over his horse. The wound was nearly five inches in length, and extended to the elbow-joint. At first sight it looked as if the injury was confined to the destruction of the skin only; however, the battered condition of the arm when pressed showed some muscular destruction also. The shot which produced this apparently small injury went right through the withers of the horse, and prior to falling mortally wounded this poor lad was removed. After the receipt of the injury his first impression was that he had lost the power of his arm; he had no sense of pain. He was ordered an opiate draught, and the wound was dressed with lint saturated with carbolic oil. After a few days there was considerable sloughing, and the outer surface of the bone was rendered so bare that exfoliation was apprehended. He had also swelling and pain in the elbow-joint. During the progress of the disease it was considered advisable to bring the arm into a good position for a subsequent anchylosis, for which he was invalided in July, 1879. The wound in this case was covered with a delicate skin, the forearm was greatly wasted, but at no time was he a good subject to bear up against disease. I am informed that he is employed in the Corps Commissionaires in London.

To these I add a case of "cystic disease," the subject of which was Private N——, of the 7th Regiment, stationed at Cork, a healthy-looking young soldier with a good family history. He had three years' home service. The tumour, which was situated over the right side of the abdomen, was by some thought to be of a fatty character. It was deep-seated. He stated that he noticed the swelling five months before, and that it enlarged slowly without giving any pain. He sought medical aid, as he found he was unable to wear his belts. He could not assign any cause for its origin or further growth. He had been in hospital for some weeks, without getting any relief from the repeated application of vesicants. On May 15th, after a consultation with the staff of the station hospital, I made a vertical incision six inches long over the tumour. The incision reached from about nine inches above the right anterior superior spine of the ilium to within three inches of this point, and lay one inch behind it. The tumour then presented an oval shape, with the long diameter placed vertically. It had an elastic feel, and was apparently unattached to the ribs over which it lay. On drawing back the flaps of the incision a mass of fat was brought to view. This I carefully dissected around, and as the fat seemed to form part of the tumour, I hesitated to go farther until I again made an exploratory incision with trocar and cannula. We then saw by the nature of the sero-purulent discharge that I had to deal with a cyst the extent of which we did not know. Sixteen ounces of fluid were drawn off, and, with the cannula as a guide, I opened the entire length of the sac. When this was done I was able to introduce both my hands into the cavity, which when well dried I washed from the base with a solution of chloride of zinc, and afterwards plugged with lint saturated in carbolic oil. In the evening he was unable to make water, and the spasmodic retention lasted for three days. The notes of this case were carefully recorded by Dr. Corker. On the 25th of May, Surgeon Webb, on taking over charge of the case, writes, "There is no fever, the wound is filling up, and the quantity of the discharge is small, and free from fetid smell; continue carbolic application." On the 6th June the edges were brought together with pads of carbolised lint. On the 13th the edges looked to be granulating. On the 20th a few small pieces of skin were grafted over the central edge of the sinus, as it was rendered irritable-looking by the discharge. On July 4th a strong solution of carbolic acid was injected into the track of the sinus. On August 20th Dr. Johnson remarks, "The edges of the sore do not look quite so healthy." By September 1st a large cicatrix had formed over the site of the operation, with a small indolent ulcer in the centre, which on examination we found opened into a sinus which extended upwards towards the lower edge of the sternum. The length of the sinus was five inches, and was limited to the width of a broad director. On the 15th there was no appreciable change, although heated probes had been applied to the track, which was at the same time injected with solutions of carbolic acid and chloride of zinc. On Oct. 6th, 1880, I laid bare the entire length of the sinus which lay beneath the adipose tissue, and touched it with nitrate of silver. The edges were drawn together with wire suture, and the carbolic dressing reapplied. On Nov. 1st the wound was small, contracted, and nearly healed. On the 30th he was allowed to rejoin his regiment.

In writing of the success and simplicity of this method of Listerism, I have no desire to do more than to point out that, since the cry of expense has been raised in the working of this system, singularly good results have been obtained in serious cases, at home and abroad, at the cost of the most ordinary applications.

Cork.

MR. E. P. WILKINS, L.R.C.P., of Newport, Isle of Wight, died suddenly last week. It appears the deceased gentleman resorted to the use of opium to allay irritability induced by a nervous affection. At the inquest, a verdict was returned to the effect that death was due to the taking inadvertently of an over-dose of opium.

THE Home Office has sanctioned a payment of £50 to the St. John Ambulance Association as a contribution towards the expenses of the Metropolitan Police Ambulance Classes.

TWO CASES OF INSANITY FROM DRUGGING OF UNUSUAL DURATION.

BY JAMES McMUNN, L.R.C.P. LOND., &c.,
LATE ASSISTANT-PHYSICIAN TO THE SLIGO AND LEITRIM ASYLUM.

DURING a period in which I filled the appointment of assistant-physician in the Sligo and Leitrim Asylum two very interesting cases of insanity were admitted. Inasmuch as these were preceded by the admission of two exactly similar cases some time before, and as in an etiological point of view such cases seem to be rare, or rather the report of them, I beg to record these two.

O. and P. G—— were admitted into the Sligo District Asylum in Oct. 1878. Their ages were respectively twenty-five and twenty-one years, and up to the occurrence for which they were admitted had always been very healthy young men in mind as well as in body, belonging to a family in which there was no hereditary trace of insanity whatever.

On admission the younger brother was the worse of the two; he seemed in a state of semi-stupor; would not speak when spoken to, or rouse up when shaken, even roughly. The temperature was a little raised. The eyes were congested, but with pupils only slightly contracted; whilst the pulse was quiet and strong, but somewhat labouring, and the respiration natural. The tongue indicated catarrh and an irritated mucous membrane, and here and there an ecthymatous spot showed, with a tinged conjunctiva and a muddy skin, a mal-depurated blood.

The older brother did not present any marked mental disturbance, and, indeed, gave a very clear account of the cause and onset of the disorder for which he was admitted. Still, in a legal sense, this account could not stand good. He spoke of the circumstance of himself and his brother being in the company of a man who some time before made use of a threat towards them; who, moreover, had certain reasons to do so; of taking from this man, who possessed a knowledge of drugs, some whisky and tea—a small glass of the former; and of remembering no more since taking the tea and whisky until he found himself on the way to the asylum, when he felt, as he did now, that he was being brought to some place of confinement, but what its character, or for what reason he was conveyed hither, his perception was too dull to realise. Altogether his nervous system was in a state of depression following upon an undue excitement of it. The pulse was quick, and showed diminished tension, with sudden ascent. Like that of his brother, not only was the tongue extremely red at the margins and tip, with a white centre, but there were the further evidences of irritation afforded by a marked abdominal tenderness. However, there were no vomiting and diarrhœa.

The police who brought the men stated that they were seen proceeding in a cart from a small village (where the last-mentioned patient said they partook of refreshments) in a highly excited state, which appeared so like intoxication that they were arrested and confined in barracks. However, this condition not passing away as intoxication should, a medical man was summoned, and the men were sent to the asylum.

But it is the after-progress which is interesting. Up to this they suffered from what may have been the ordinary effects of some combined poisons.

For some days the condition of the older brother appeared to improve; the tongue cleaned, the pulse got normal, and the only apparent mental aberration was an unusual solicitude for the welfare of his brother, with a corresponding melancholy, and a want of an intelligent realisation as to circumstances and surroundings.

Then, psychologically considered, as if the emotional and ideational faculties of the mind became morbidly exalted by these very circumstances, with accompanying enfeeblement of its inhibitory intellect, or that the effects of toxic influence continued to react on the nutritive processes of the brain, fraternal solicitude grew to dread of impending evil, and this to well-marked melancholia. Thus, after the lapse of some few days, the patient used to say, "Whatever you are going to do with me, good people, do it now; but don't injure my friends or my brother." Later on he refused his food, would not speak, had to be forcibly taken about, and his eyes and expression betrayed an inward terror when he was approached, but it was not the expression of intellectual insanity. He remained in this condition for twelve months, during which time he had to be fed with a tube. He grew much emaciated, all the bodily functions were performed languidly, and a fair trial of medicine had no effect on his acquired fatuity. At the end of these twelve months his bodily health improved; he was got to work gently on the farm, and was now and then prevailed upon to eat by the food being first introduced to his mouth. A month afterwards he escaped to his home; he was brought back by an attendant, to whom he narrated all the preceding incidents of his asylum experience, but ceased to talk on coming near the institution. Very soon afterwards, guided by this action, the superintendent wisely allowed the patient to go home, who, in some weeks after, enjoyed his former health and feelings.

After the disappearance of the peculiar somnolent state which the younger brother suffered from on admission, his progress presented no difference to that of his brother, which constitution could not account for. He made use of the same expression relative to his mysterious and impending fate; however there was no one concerned in it but the "ego," and this alone would point out the similarity of their insanity. Naturally possessed of less exalted emotion, younger, and, judging from the state on admission, perhaps the subject of a larger dose of the deliriant, the poison had a more general effect and disturbed the cerebrum and sensorium alike. Thus, whilst continual clasping of the hands, certain religious acts and use of the foregoing expression pointed to the emotion,—an inability to recognise his brother, to tell his own name, and the exaction of a promise from the attendants to have him released in five years and so many days, and this on their knees too, proved to my mind intellectual insanity. He continued for six months in this condition, during which time he had once to be forcibly fed. All along his bodily health was good, but on many occasions his pulse, usually slow, went as low as 38. His mental state never varied in character, though now and again in degree, until July of the same year, when he caught typhoid fever, which was free from delirium, and which, though followed by pyæmia of an aggravated type, left the mind in a restored condition.

The temporary nature of mental derangement occasioned by drugs is the chief distinguishing feature between it and ordinary insanity. That a single dose, at all events, of a poison causes symptoms only so long as it is present in the system, these symptoms ceasing almost with its elimination, is the prevailing idea. But in the preceding cases a single dose caused an aberration in one case which lasted over a year, and in the other an almost similar condition, which would in all probability have lasted as long did not the zymosis of a fever cause some counteracting change in the nutrition of the brain. In these cases, therefore, the idea of mental perturbation depending on the presence of a poison in, or its effect on, the blood, so as in the first case to cause persistent irritation of the brain cells, or in the second to prevent healthy assimilation, is untenable. It seems, then, probable that the poison effected some change directly in the nervous tissue itself; and whether the persistence of the effects depended on the hindering or alteration of metabolic processes, or the prevention of the removal of the chemical products of unusual brain force, and so the interruption of harmonious relation and uniform discharge, is interesting to consider. Again, neither scientifically nor clinically considered, would at least one of the preceding cases find a place in the generally useful classification of Esquirol, or in the intellectual or emotional forms of insanity of some writers, for this case was equally emotional and intellectual. Possibly it might be classed as an ideo-emotional form of insanity, with depression. And here I would with deference suggest that were we to make better use of metaphysics—which takes the student so many weary hours to conquer—in the way of adaptation towards the clinical phenomena of diseased mind, insanity would be placed not only on a more scientific footing, but on a more progressive one, and it is only to express my meaning that I adopt the above nomenclature. Granting the existence of an "ego," it seems to me to be quite possible to study clinically the component parts of the mind. At least, an attempt in such a direction might make this worthy study more interesting, and help to cause it to keep pace with the other branches of medicine, and so elevate it from its long-

standing, almost stationary condition and meaningless etiological classifications.

With regard to the drugs given in the preceding cases I have no idea, except that cocculus indicus might have been procured; but with this it is highly probable there was some irritant mixed.

Park-lane-terrace, N.

ON A CASE OF

PROLONGED ENDURANCE; AMPUTATION AT SHOULDER; RECOVERY.

BY JAMES ARTHUR, L.R.C.P. & L.R.C.S.E.

ON May 3rd, 1881, I was summoned to attend S. B——, aged forty, who had sustained an accident in a coal mine. Learning that the injury was serious, and that the man could not be got out, I descended the shaft, about a thousand feet in depth, and after travelling more than a mile into the mine, the last fifteen yards crawling over fallen *débris* in a space twenty-two inches in height, I found the man sitting in a crouching position with the thighs flexed on the body and the legs flexed on the thighs, by the side of a "tub," an iron box about three feet square and eighteen inches deep mounted on four small wheels. A huge stone in the roof about twelve feet square had come down and caught his right arm while resting it over the edge of the tub close to the shoulder, at the same time his hand was resting over the tub in front. In this position he was held fast by the hand and near to the shoulder, the arm being inside the tub and his head bent forward on to his chest. My first effort was to stop the hæmorrhage, and for this purpose I tied a piece of tarred rope (the only thing in the shape of an antiseptic ligature I could lay my hands on) round the arm, compressing the artery against the head of the humerus. The accident occurred at 8 A.M., and at 11 A.M., notwithstanding the utmost exertions of the workmen under the personal superintendence of the manager, the prospect of extrication seemed more remote than ever. This is not to be wondered at when it is remembered that the unfortunate man was hemmed in on both sides and behind, and that only two men could take part in the work at a time, in a narrow space, twenty-two inches in height, with the probability of a further fall of stone crushing all present. I then advised the man to allow me to amputate then and there, which would permit his immediate removal and end his suffering, which was becoming more acute as he was recovering from the state of shock. To this he agreed on condition that I would give him chloroform; but that I considered could not be risked in his doubled-up position. Even without chloroform the risk of operating was great in such a small space, lying as I was on my stomach, in a hot and stifling atmosphere, with only the light of a few "Davy" lamps, each equal to about a wax vesta; I therefore gave him some brandy-and-water and the work was proceeded with. At 4 P.M. I was joined by Dr. Wilson, who agreed with me that a rough amputation at first was freer from danger than the delay. At 5 P.M. he was liberated, after enduring nine hours of agony in an immovable position. Beyond seeing to the security of the ligature, nothing was done until the man was taken out of the pit and conveyed to his own house. The hand at the middle of the metacarpus was hanging by a few shreds; there was a compound fracture at the surgical neck of the humerus; the floor of the axilla was opened, and there was fracture of the third, fourth, and fifth ribs. The attention of Dr. Wilson was wholly engaged with the administration of chloroform, rendered more difficult by the disturbed respiration and increasing dyspnœa; there was then no professional assistance to whom the controlling of the hæmorrhage might be entrusted. I therefore first performed the ordinary operation of ligature of the axillary artery and vein, and then amputated at the shoulder-joint by an outer semilunar flap. The head of the humerus was disarticulated with some difficulty, owing to the shortness of the fragment. There was not sufficient skin to form the lower flap perfectly, and the edges were brought into apposition with slight stretching, and maintained by wire sutures. The after-treatment was complicated by the supervention of broncho-pneumonia with hæmoptysis from the damage done to the lung by the fractured ribs. On the sixth day the temperature reached 103°, on the twelfth it was normal and the sutures were removed; union had taken place at the anterior and posterior fourths of the wound, while at the middle and lower part the flap had retracted, leaving a granulating surface, which very much lengthened the period of convalescence. Antiseptic precautions were observed throughout; two grains of quinine given thrice daily for the first week, opiates and expectorants for the lung affection, the most nutritious foods, but no stimulants until the end of the first month, when a glass of beer to dinner was allowed. Excepting a surface the size of a sixpence, which is rapidly cicatrising, the patient is now (July 30th) quite well.

Wingate, Co. Durham.

CASE OF

ACCIDENTAL POISONING BY SULPHATE OF ATROPIA; RECOVERY.

BY THOMAS FITZMAURICE, L.R.C.S.I., &c.

AT 7 P.M. on Wednesday, August 3rd, I was called to Minsterley to see a female child, E. J——, aged two years, who had been on a visit with friends at the above village, and who was taken suddenly ill two hours previously. On the road I was met by a second messenger, telling me to ride as quickly as possible, that the child had taken poison and was dying. On my arrival I found the little sufferer in a very grave state. It seems the child's aunt, with whom she lived, had been suffering from iritis, and on the day in question emptied her eye-drops (although marked "poison") into a tea-cup, the contents of which the child drank, with the following results: Violent clonic spasms, recurring at intervals of five minutes; pupils dilated till the iris had almost disappeared; skin hot and dry, but I could not observe the eruption supposed to be present in poisoning by this drug. One symptom which was most painful to witness was the mirthful delirium; in the intervals of repose she laughed, called at imaginary objects, and at times for her mother, whom she could not recognise on presenting herself.

Although this was the first case of the sort I had seen, it was not difficult of diagnosis. I administered an emetic of one teaspoonful of mustard in a cup of tepid water; this having no effect was repeated in ten minutes, but with the same result; then two teaspoonfuls of castor oil. I heard afterwards she was given the same quantity of oil before I saw her. Having sent for other emetics, a stomach-pump, &c., and seeing the case becoming more serious, I gave another teaspoonful of mustard in water without avail. I may mention the child swallowed each cupful ravenously, which plainly showed the parched state of the mouth and fauces. In a quarter of an hour after the last emetic she was given thirty minims of ipecacuanha wine, which was repeated in ten minutes, when she showed signs of nausea, and soon afterwards, to the delight of her friends and myself, vomiting commenced, when the stomach was emptied of a pint of fluid mixed with undigested food. Then the temperature fell. A copious perspiration broke out on the skin, which before was hot and dry, the spasms became less frequent and of shorter duration, but the pupils still remained dilated. At 10 P.M., in consultation with Mr. Elmslie, I gave her solution of potash and tincture of opium, of each two minims, to be repeated every hour till morning, with soda-water and milk to drink.

On calling next day most of the symptoms had disappeared, except one, which I did not discover before—viz., a peculiar dragging of the left lower extremity, resembling that of paraplegia. Whether this will remain permanent I cannot say, as mother and child left for their home at Birkenhead on the 7th inst.

On inquiring from the chemist who compounded the drops, I found that they consisted of liq. atropiæ sulph. (B.P.); and as the child's friends were confident that she took at least a teaspoonful of the fluid, it would represent a half-grain of the alkaloid, which I believe is an unusually large quantity to recover from.

The points I consider important in this case are—(1) The persistence of the stomach, skin, or bowels to act, and how the first being emptied the other two in the order named were called into action. (2) The difficulty to use a stomach-pump with safety from the frequent recurrence of spasms. (3) The affection remaining in the lower extremity.

Pontesbury, Shrewsbury.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

CHARING-CROSS HOSPITAL.

A PLATE OF ARTIFICIAL TEETH FIXED IN THE ŒSOPHAGUS; REMOVAL BY FORCEPS; RECOVERY.

FOR the notes of the following case we are indebted to Mr. F. Ernest Taylor, house-surgeon, who so skilfully succeeded in withdrawing the offending body.

E. W——, aged fifty-seven, was taken to the hospital on July 10th, about 9.30 A.M. It was stated that she had swallowed a false palate with artificial teeth attached in the night during sleep.

The woman was suffering great pain referred to the œsophagus. On external examination some hard foreign body could be distinctly felt, situated just below the level of the cricoid cartilage and distending the œsophagus at this point. On looking into the mouth nothing could be seen; but on passing the finger well down the pharynx and about an inch beyond the epiglottis, a foreign body was touched. Attempts at extraction at this moment had to be relinquished in consequence of severe symptoms of asphyxia.

On external examination the palate had evidently moved lower down, owing, no doubt, to the peristaltic action of the œsophagus, and was situated at the level of the third ring of the trachea.

Ether was administered, and a long pair of œsophageal forceps were used for the purpose of seizing the foreign body. At the second attempt one corner of the palate plate (represented in the accompanying woodcut) was secured. The

body was then grasped externally, so as not to allow its moving lower down; and then with considerable difficulty the body was removed, some force having been required to dislodge it, owing to the hook-like process formed by the loss of one of the teeth catching in the mucous membrane of the gullet.

The woman was greatly collapsed for three days, but was well enough to leave on the fourth day after her admission.

SUSSEX COUNTY HOSPITAL.

CASE OF HYDROPHOBIA TREATED WITH HYPODERMIC INJECTIONS OF MORPHIA AND ATROPIA; DEATH.

(Under the care of Dr. FUSSELL.)

FOR the following notes we are indebted to Mr. Uhthoff, house-surgeon.

On June 4th last a Scotch colley, which had broken its chain, was wandering at large in the neighbourhood of East Grinstead. The dog was supposed to be mad, and was destroyed, but not before it had bitten at least five persons. One of these, a navvy, was taken to the London Hospital on July 24th, and died soon after with symptoms of hydrophobia. George B——, aged fifteen, the subject of this account was another victim. He was a strong, healthy lad, employed in farm-work. The bite he received was on the right hand; it did not seem to have been a severe one, and was cauterised soon after its infliction. The wound healed well, and apparently the boy was in his usual health and spirits, and thought nothing of the matter.

On Wednesday, July 27th, more than seven weeks after the reception of the bite, a companion said to him, "George, that navvy is dead what was bitten the same time as you." On hearing this the boy turned suddenly pale, and from this time the symptoms were observed, which increased in severity until his death on July 31st. He became pale and depressed, and refused food; he had difficulty in swallowing, especially fluids; he moved his lips and lower jaw in a peculiar manner; he complained of feeling cold, and had frequent attacks of dyspnœa; if he was on his feet during one of these attacks he fell to the ground as if giddy. He did not suffer at all from the wound, or complain of it.

On admission at 2 P.M. on Saturday, July 30th, he was first seen in the waiting-room, sitting on a bench closely wrapped in a blanket, and looking desperately ill. His head was hanging down and his body crouching forward. His face had a death-like pallor and a peculiar expression like that of a person in a state of intense grief; his eyes were sunken, and his pupils dilated. He took little notice of anyone about him, but frequently complained of a draught which did not seem to exist, and of feeling cold. His breathing was constantly short, but every now and then he had an attack of increased dyspnœa, and then his face flushed for a second or two and he threw himself about in a restless manner; and his action, again, was like that of a person in great grief who would not be comforted. He said he would like a little milk to drink, but when he saw the cup he turned away with a shudder and gasped for breath; he tried to swallow a little from a spoon, but he spilt the greater part of it, and the attempt seemed to greatly upset him. All the time, and especially at each breath, he moved his lips and lower jaw in a peculiar manner, as if food had collected between the lips and incisor teeth, and he was trying to move it into the mouth. He did not complain of any pain, and had no tenderness about the scar of the bite. His pulse was quiet (100); his temperature 102°. His forehead and head were moist with perspiration, and his hands were cold and clammy. He had no priapism, and passed urine without difficulty. His tongue was moist, but thickly furred; no vesicles were visible under the tongue. He answered questions in snatches, intermingled with frequent deep-drawn sighs.

This condition lasted with but few additional symptoms until his death. At 4 P.M. he had an injection (hypodermic) of one-twentieth of a grain of sulphate of atropia, with one-sixth of a grain of sulphate of morphia. For about an hour after this he was much quieter; but then he became more restless than before, and was quite delirious. His wanderings resembled those of delirium tremens, for he talked only of his work and saw various animals about his bed, but they did not seem to frighten him, and he was seldom heard to mention a dog. His tongue became dry, and at 6 P.M. his temperature was 104°. The latter could not be again taken before death, for the attempt upset him much, as he thought the thermometer was a knife.

At 2 A.M. on July 31st all the symptoms were much the same, but he was weaker (pulse 130 and feeble) and his hands colder. He had commenced retching and spitting, and complained of his head aching. At this time a hypodermic injection of morphia, one-third of a grain, was administered, but it gave him no sleep. At 8.30 A.M., immediately after a spasm of retching and dyspnœa, his eyes suddenly became fixed and he ceased to breathe. This fixing of the eyes had been noticed by the nurse once or twice before, but had passed away. The temperature taken in the axilla just after death was 102·5°.

Three small discoloured cicatrices had been left by the bite, one on the back of the second phalanx of thumb and two on the adjoining part of the back of the right hand. Nothing abnormal was noticeable about the hand or arm. Urine was high-coloured; specific gravity, 1026; acid, loaded with lithates, containing no albumen or sugar.

Necropsy, twenty-four hours after death.—Rigor mortis slight; considerable hypostasis. Eyes sunken; pupils medium (but just before death they were much dilated). Body well developed and well nourished, though there was an absence of subcutaneous fat. The inside of the skullcap presented a peculiar minute arborescent congestion, giving the whole a light purple colour. The brain was large and heavy (59½ oz.); the white matter was very soft and readily gave way under a strong stream of water; this was specially the case in the neighbourhood of the lateral ventricles. No increase of fluid in the ventricular cavities; convolutions well developed. The naked-eye appearance of the spinal

cord was in no way peculiar (brain and spinal cord kept for further examination). Tonsils large; no œdema of fauces or larynx. Extensive interstitial emphysema of the anterior margins of both lungs. Right side of heart full of dark imperfectly clotted blood, and the lining membrane much stained. Abdominal viscera normal. Slight enlargement of right axillary glands, nothing else noticeable in the condition of the arm, either in the position of the bite or elsewhere.

Reviews and Notices of Books.

On the Diseases of Children. For Students and Practitioners. By W. H. DAY, M.D. pp. 772. London: J. & A. Churchill. 1881.

THE perusal of Dr. Day's book has reminded us of that excellent work, Hare's "Walks in Rome," which consists of long and copious extracts from various authors, with connecting links by Mr. Hare. With commendable industry and much discrimination, Dr. Day has collated many cases of children's diseases recorded during the last few years in the Pathological Transactions and the medical journals. No writer could be more solicitous to give full acknowledgment to those from whom he quotes, for in some instances the addresses as well as the names of the authors of reports are given; not only records of cases, but definitions of disease, and descriptions of symptoms, are often quoted *in extenso* from the standard text-books. It is, however, somewhat inconvenient that often the quotations and summaries have regard to the manifestations of disease in adults rather than in children, so that a cursory glance at many parts of the work might lead the reader to suppose that he had in his hands a general treatise on medicine with a few remarks on diseases of children thrown in by the way. Now, in these days of much specialism and its attendant book-making, the hard-working practitioner and the long-suffering student may fairly demand that a book on a specialty of medicine shall be kept strictly within the lines of that specialty. To prove that we are not captious in these preliminary objections, we will give a few illustrations from Dr. Day's work. In the chapter on Bronchitis (p. 410), there is a full account given of the characters of the sputum in different stages of that disease—first glairy, then purulent, nummular, and the like. This is not merely irrelevant, as applying to adults and not to children, but would be positively misleading to a student, who ought to be told that, with rare exceptions (as, for instance, when actual vomiting occurs), a child does *not* expectorate, but for the most part swallows, the material which is expelled from the lungs.

In the descriptions of Pleurisy and Pneumonia, Dr. Day makes these very common diseases of childhood begin with rigors. He has obviously before him the text-book account of them as they occur in adults. But he must be perfectly aware that a rigor in the period of childhood is an extremely rare event, even in ague and pyæmia. It is an axiom of medicine that the initial rigor of an acute disease in adult life is represented in childhood by a convulsion.

Once more in the account of pleurisy, concerning pleuritic friction, it is remarked that the patient's sensations give him the impression of something being dislocated. What child ever gave such an account of its symptoms as this? The reason why pleurisy is so constantly ignored in childhood is that the patient gives no account of his symptoms. Herpes zoster, we are told, is "frequently followed by severe neuralgia." Perfectly true with regard to adults, but quite untrue with regard to children, who suffer very seldom from neuralgia of any kind, and certainly not from neuralgia after zoster, which in them is quite an insignificant malady.

Why the gastritis of drunkards, with Rokitansky's account of its morbid appearances, should be referred to at all it is difficult to conceive (p. 180). The same remark may surely be made with respect to the section on Acute Yellow Atrophy of the Liver; and the chapter on Small-pox contains so very little that is special to children that it might with propriety have been omitted.

Leaving now the large portion of this work, made up of extracts and summaries, we come to consider the more strictly personal part of Dr. Day's book. It fairly brims over with treatment, and as this is doubtless the section to which the author has given most attention, and on the ground of which he will appeal to the general practitioner, we will refer to it at once. It may be truly said that in no branch of medicine has "expectancy" led to more valuable results than in the acute specific diseases of children, but this seems to have been very imperfectly realised by Dr. Day, for even in so simple a disease as chicken-pox part of his treatment consists in giving a saline and antimonial aperient. Indeed, antimony, grey powder, and perchloride of mercury recur much more frequently in the author's prescriptions than we like. The account of the *modus operandi* of certain remedies strikes one as extremely definite, and would doubtless be satisfactory if only there were the slightest shadow of evidence to support it. Dr. Day has known epithelial and fibrinous casts to be facilitated in their escape from the convoluted tubes of the kidney whilst the patient was taking perchloride of mercury combined with perchloride of iron. We do not deny the occasional value of mercury in Bright's disease, although its administration is sometimes attended with risk, but how Dr. Day can demonstrate that it "facilitates the escape of casts from the convoluted tubes" passes our comprehension.

In spite of much detail, and an extensive selection of formulæ, there is a provoking generality about many of the instructions as to treatment. Can anything be more vague than the following sentences on the prophylaxis of fevers? "Such measures are to be resorted to as support the constitutional powers, and encourage the due performance of the different functions of the body." Again: "Moderate exertion of mind and body, and the inculcation of habits which neither over-excite nor depress, will enable a child of delicate organisation to resist infectious effluvia," &c. (p. 66).

In the section on the treatment of Acute Rheumatism there are copious extracts on the use of salicin compounds, but they all refer to adults, and no special indications are given for the use of these drugs in children, where the joint manifestations and pain are relatively slight, whilst the heart mischief is considerable.

The references made in this book to electrical treatment are cursory and imperfect. In regard to chorea, we are told that "a gentle constant current, applied for four or five minutes to the suffering portion of the brain, generally arrests the choreic movements at once" (p. 627). We cannot recall a more extraordinary statement in therapeutics than this. First we would ask, *which* is the suffering portion of the brain in chorea, and having found it, how does Dr. Day propose to apply to it a gentle constant current? Does he propose to repeat Dr. Ferrier's experiments on his youthful patients, having made a preliminary trephining operation?

Strychnia and galvanism, we are informed, are very useful in diphtheritic paralysis. Now, the common form of diphtheritic paralysis in children affects the soft palate and one or more of the recti muscles of the eyeball. If Dr. Day will make the attempt he will find it impossible to apply galvanism to the soft palate of a child, and we should be glad to know how he proposes to apply it to the recti muscles of the eyeball. The paragraph on electrical treatment in infantile paralysis is very unsatisfactory. Faradism and galvanism are mixed up, and the distinction between them, which so far as treatment is concerned is a vital one, is not even hinted at.

We are greatly disappointed with the chapters on Croup and Diphtheria. To the old-fashioned distinctions between these diseases, repeated *ad nauseam*, and for the most part exploded, Dr. Day adds one which, so far as we know, is peculiar to himself—viz, that "if croup were identical with diphtheria, it seems to me that the operation of tracheotomy would rarely succeed." Whatever this ambiguous sentence may mean, it is quite certain that in some well-accredited cases of diphtheria tracheotomy has succeeded. The practical issue of the Medico-Chirurgical debate was, that when the affection of the larynx is non-membranous the patient has a chance of recovery under many different modes of treatment; whilst if the affection of the larynx be membranous, the chance of recovery without tracheotomy is extremely small. This ought to be insisted upon independently of any question of nomenclature, whether the case is to be called croup or diphtheria, or the like. What are the indications for tracheotomy according to Dr. Day? "When all remedies have failed, and death is near at hand" (p. 324). A simple indication indeed! For our own part, we hold that if there be progressive enfeeblement of voice and embarrassment of breathing—the latter shown *not* by increased frequency, but by increased effort and increased recession—a prompt resort to tracheotomy is the only chance; and we should have much more confidence in the friendly knife than in antimonial and calomel treatment.

There is no part of the study of disease more difficult than its etiology, and we turn with much interest to the somewhat lengthy paragraphs which Dr. Day has devoted to this part of his subject. Perhaps a few quotations will show how far he has thrown light on some of the causes of disease. At p. 215 we are told that amongst other causes "a torpid and sluggish liver" has given rise to cirrhosis of that organ in children. At p. 289 a "loss of tone in the peritoneum or lymphatics" is given as a cause of ascites. "Teething is not an uncommon cause of infantile paralysis." "Blows and falls upon the hip have caused this form of paralysis." "Tuberculosis is a common cause of psoriasis." "Tuberculosis is one of the causes of difficult and delayed dentition." Now, concerning the first and second of these statements, we can only say they convey no real explanation whatever. For the third, fourth, and fifth assertions there is absolutely no evidence, and it is extremely unlikely that they are true. The sixth statement is simply at variance with the well-established observation that, as a rule, tuberculous children cut their teeth quickly and with little trouble. (*Vide* Jenner's first lecture on Rickets.)

The most striking piece of etiology in the book is the explanation of the alleged greater frequency of calculous disease in boys of the humbler ranks than in the children of the well-to-do. Dr. Day says, p. 238, "The reason is possibly because their skin and lungs are hardened against chill, whilst during customary exposure to cold their kidneys become congested. On the other hand, children of gentle breeding have often weaker lungs, but, through efficient clothing, they are less liable to contraction of the blood-vessels of the skin, and to consequent increased pressure on the kidneys."

Although in his descriptions of the morbid anatomy of disease the author has generally kept himself right by quotations or summaries, his pathology is sometimes original. Thus we are told on p. 231 that liver affections and arrested skin action may increase the bulk of the spleen, and "if these disorders continue the spleen *fails after a time to propel the blood onward*" (*sic*). Further, we are told that ascites occurs but rarely in splenic enlargement "owing to the thick capsule of the spleen not admitting of the exudation of any fluid, as happens in some affections of the liver and intestine."

The chapters on Diseases of the Liver are extremely unsatisfactory from the student's point of view. Thus, under the head of adhesive inflammation the author describes interstitial hepatitis, and passes without break to his account of cirrhosis, leaving unexplained the connexion, if any, between these two diseases, or whether the terms are to be considered synonymous or not.

In Albuminoid Enlargement of the Liver the explanation is given that albuminous matter is infiltrated through the organ, and in a later chapter a separate account is given of lardaceous disease. The description afforded of congenital malformations of the heart in a work on the diseases of children is extremely meagre, and it is somewhat odd to find cyanosis discussed in the next paragraph with a separate heading as a distinct affection, and the repetition of the old fallacy that it is due to a communication between the auricles.

We have confined our criticism for the most part to general lines, and we have no space to deal with Dr. Day's chapters *seriatim*, but a careful perusal compels us to say that this bulky handbook of more than 700 pages is not one that can be recommended to the student. The general practitioner may, however, find the volume useful as a storehouse of information, though he will be the first to recognise that its value is almost entirely due to its being a compilation. Dr. Day's book cannot be considered to have advanced the study of children's diseases.

Collected Works of Francis Sibson, M.D. Lond., F.R.S., D.C.L. Durh., F.R.C.P. Lond., &c. Edited by W. M. ORD, M.D. Vol. IV. London: Macmillan and Co. 1881.

DR. ORD has done good service to Dr. Sibson's memory in collecting and editing the most important of Dr. Sibson's numerous papers, and in presenting them to the profession in the present form. Dr. Sibson did so much valuable work in medicine and physiology, and was so clear a writer, as well as an exact and patient observer, that it would have been a matter for great regret if his numerous papers had been allowed to fight out the chances of existence amongst the varied contributions to our periodical literature only. Such a struggle has been averted by the kindly care and thoughtful consideration of Dr. Ord, and both the writings and the reader derive a substantial advantage. Dr. Sibson's published papers, complete and incomplete, were about thirty-nine in number, and of these, twenty-six, which are quite representative of his work and thought, are included in the present reproduction. They are arranged broadly in two groups: the first comprising the papers relating to the physiology of respiration and to the natural history and diagnosis of diseases of the lungs and heart; whilst the second includes those which refer to the physiological action and therapeutic use of some of the narcotic poisons. By far the larger number are included in the first group, and they are of peculiar interest as being the material on which the greatest of Sibson's works, that by which he will always be known in after years—his Medical Anatomy—was based. From 1844 to 1849 he was constantly publishing his observations on the position of the viscera in health and disease, and even so late as 1873, in a clinical lecture delivered at St. Mary's Hospital, and subsequently published, he reverts to another phase of the same subject. The most important of these is the first paper in the group—viz., "On the Changes induced in the Situation and Structure of the Internal Organs under varying circumstances of Health and Disease, and on the Nature and External Indications of these Changes"; and the number and exactitude of his observations surprise the reader the more when he remembers that this was almost his first professional production, and was worked out and published while still in general practice in Nottingham. It strikingly illustrates the mental habits of the man, his laborious and careful investigations, his

repeated observations, his careful research into facts, and his hesitation in making inferences; for most of Sibson's conclusions were mainly the restatement of his observations rather than deductions from them. Another interesting paper in this series is the essay on the "Mechanism of Respiration," in which the same minuteness of observation and unsparing investigation of every detail in the phenomenon are again exemplified. He contributed to the Philosophical Transactions another paper describing the blow-hole of the porpoise, and was in consequence elected a Fellow of the Royal Society in 1849. These anatomical and physiological studies led up to his clinical labours, which were marked by the same characteristics as we have already described. The elaborate articles on "Pericarditis" and "Endocarditis" are peculiarly valuable for their numerous tables; and the exactness of the observations on which the statements are based is shown with the most rigid and mathematical accuracy. These will have to be examined and studied by everyone who wishes to obtain correct statistics, rather than mere personal impressions, bearing on any symptom or feature of these diseases. In the second or toxicological group of papers, five in number, Sibson appears as an experimental physiologist as well as a practical physician, and his skill in devising new experiments and in inventing new apparatus is well shown. His papers on the inhalation of ether and chloroform and on opium poisoning are well deserving of study, although the literature of anæsthetics has increased greatly during the last twenty years. Detailed criticism of Sibson's papers is almost impossible; they will always remain as storehouses of facts for after generations, and illustrate in a striking manner the individuality of the man. Dr. Ord deserves every credit for the judicious and yet kindly manner in which he has filled the office of editor to his late friend, and for the interesting sketch of Sibson's life and work, which he has added to this excellent and valuable collection.

INTERNATIONAL MEDICAL AND SANITARY EXHIBITION.

SANITARY SECTION.

[THIRD NOTICE.]

FROM the management of house-drains, which we studied in our last report, we naturally turn to the exhibits relating to public sewers. These certainly were not so numerous, but they presented one or two important new features. The increasing favour accorded to stoneware pipe sewers is very evident. This fact is demonstrated not merely by the number of stoneware sewer-pipes exhibited, but also in the plans of model estates, such as those of the *Artisans and Labourers' Dwellings Company*. These drawings are well worth examining, for we have not only a sketch of each house, but the map of the two great estates belonging to the company. In both these cases the company have used stoneware drains, and of very small dimensions. Though there are no less than 1150 houses on the Shaftesbury Park Estate, six-inch and nine-inch drains are considered sufficiently large. These pass behind the houses at the end of the back yards, or gardens. The closets also have no connexion with the interior of the dwellings, the doors opening out into the yard or back garden. The scullery door, it is true, does communicate with the inside of the house, but the scullery water is drained through the wall, and falls over an open gully, so that the inhabited portions of the buildings have no connexion whatsoever with the sewers. We should also remark that each room in the artisans' dwellings is ventilated independently of the window. The adoption of pipe-drains is not absolutely free from risk. Careless workmanship and an insecure foundation in this, as in other things, will produce disastrous results. Hence the great utility of such inventions as Stanford's patent joint, which is too well known to need describing, but which, we are glad to note, is now more generally used through a relaxation in the semi-monopoly formerly enforced by the patentee. A great number of manufacturers are now attaching the joint to their pipes.

Messrs. Edward Brooke and Sons offered some very graphic sketches of the results that accrue when the space between the sockets has not been filled in, or where the sockets have been laid in a hollow, and the superincumbent material has consequently crushed them. The split and crumbling drain-pipe depicted is certainly suggestive of an outbreak of enteric fever. These risks the firm propose to dispel by running four ribs from socket to socket, so that the pressure will be even all round. The ribs further ensure greater accuracy of form, and prevent the pipe warping when dried in the kiln.

In districts where the old-fashioned objection to small sewers still survives, a pipe-sewer of enormous size can be supplied; but it is made of concrete, and not of stoneware. Thus *Messrs. Henry Sharp, Jones, & Co.* showed some very fine perfect barrelled sewer-pipes a yard in diameter, and egg-shaped pipes of the same material, measuring 3 feet 3 inches by 2 feet. These so-called "rock-concrete tubes" are described as imperishable, easily joined together, and will increase in hardness and durability by the action of the water and sewage passing through them. The "*Eureka*" *Concrete Company* displayed a similar article, said to be less brittle than stoneware. They divide their egg-shaped sewer into three or four sections, according to size; thus it is rendered more transportable; and, for inspection, the upper section or arch could be easily detached so as to admit a man. In *A. Walker's* culverts we have also the sewer made in sections with lap-joints, so that each piece is self-adjusting, and cannot be displaced when once properly fixed. These concrete sewers are, in any case, a great improvement on the old brick pipes, and have the advantage of being easily transported from place to place, and of being laid down by comparatively unskilled labourers. On the other hand, we have in Lovegrove's lamp-hole and clearing shaft a totally new invention, which will remove whatever objection may still be raised to using small stoneware pipe drains. This consists of an oval-shaped pipe, communicating from the street to the sewer below. It is divided into three sections. Down the central section a lantern can be introduced. At the basis the two side sections curve off, joining the sewer above and below the lantern-shaft. Down these divisions or shafts flexible canes can be introduced, and obstructions removed at a distance of even three hundred feet. These inspection-shafts would also serve very well as ventilators, and by placing them at intervals of a hundred yards from each other the entire sewer would be accessible to the canes, which could be used wherever the lantern showed that the flow of water had ceased. Thus it will no longer be necessary to excavate down to the sewer, or to build costly manholes. This is the second entirely new invention exhibited by *Messrs. James Stiff and Sons.*

By the side of these various inventions for the construction of sewers were shown many patents for enabling them to act when once they have been laid down. The two principal causes of improper action is either the absence of a sufficient quantity of water or a feeble fall. Hence we have various methods of collecting sewage at a given point and then discharging a large volume at once, so that the violence of the rush may clear away all obstacles. Prominent among these were *Isaac Shone's Sewerage System*, which is now being applied at Eastbourne and Winchester. This well-known system of forcing sewage automatically up an incline or hill is so familiar that it need not be again described, but no sanitary exhibition would be complete without it. Mr. Rogers Field had also his self-acting annular syphon, discharging by an absolutely automatic action large quantities of sewage gradually collected in the receiving-tank. This is also a well-known contrivance; it has been used at Aylesbury, Leamington, Penzance, and many other English towns, while abroad it has travelled as far as Rio de Janeiro and Memphis. It is very evident that where storm-water does not run into the sewer, and where the fall is slight, it is better to prevent a slow and ineffectual trickle of sewage by allowing the liquids to accumulate at given intervals till a large tank is full and then discharging the whole volume

suddenly and forcibly into the sewer. To avoid the deposition of suspended matter, and the consequent generation of sewer gas, sewage should flow at the rate of about three feet per second, and, therefore, inventions that accelerate the flow are of considerable value. In this respect we should not omit to mention *Adams's Improved "Quick-charging" Syphon*, as it may be commended for its comparative cheapness and convenient form.

By the side of these ingenious methods of managing the public sewers there were, of course, a certain array of systems by which sewers are dispensed with altogether. *Patent No. 4479* was a good case in point. It may be adopted by anyone on the payment of £1 royalty, and consists of a series of earthen troughs, placed one above the other, through which the house-sewage drains, is disinfected, and converted into manure. But M. Talard's system of emptying cesspools is a far more recent introduction. This process we described at some length last June, when an experiment was made at Kew Gardens. We are glad to note that what was a mere theoretical study has now become a commercial reality. The *General Sanitary Reform Company* has been constituted to introduce Talard's patent to the English public, and the enormous profits made in France, where the method has long been in use, are certainly encouraging. It is fortunate that what cesspools remain in England—and their number is incalculable, in spite of the sewers built in recent years—may now be emptied without creating a nuisance, with more promptitude, and at a reduced cost.

Before concluding the question of drainage we may notice a few specialities we have not yet had an opportunity of mentioning. For example, two manufacturers supply closets discharging into the pan a small quantity of disinfecting fluid. The one is the Patent Syphon Disinfector made by *Mr. Edward Warner*, who employs a glass reservoir to retain *Jeye's Perfect Purifier;* the other is the apparatus shown by the *Antiseptic Apparatus Manufacturing Company*. The latter consists of a copper cylinder, which can readily be attached by a plumber to any existing closet pan below the seat, and which each time the plug descends discharges a certain quantity of disinfecting fluid into the pan.

Mr. E. Howard's Patent Duplex Closet places the back of the seat, when the lid is shut, in communication with a ventilation shaft, which runs up the wall. The shutting the lid also flushes the pan. This system has been employed in several infirmaries and workhouses.

Thomas Waller's Patent Ventilating Apparatus is a closet seat contrived on the same principles, with the addition of an inlet for air under the seat. In both cases it is the closing of the lid which sets the system of ventilation in action.

Messrs. John Bolding and Sons exhibited a porcelain pan and a porcelain container; the former can be lifted out, and the latter easily cleansed, but it seems to us that it would be as well to avoid altogether the necessity for any such unpleasant operation.

A. Shaw's Mechanical Dry Closet may sever the connexion with the sewer, but it offers no means of preventing the bad odours that arise within the closet itself; whilst the *Patent Signal Alarm Trap and Closet* may be a very good invention, of which, however, we were unable to judge, as the exhibitors refused any explanation. We saw wonderful signals announcing at one moment the blockage of the drain, at another that it was clear, or warning us that sewer gas was coming up, but we were left in darkness as to what makes these signals work, nor were we afforded any means of testing their accuracy.

Messrs. A. Emanuel and Sons showed a good double syphon water waste preventer, as well as an excellent closet regulator, by which the handle falls gradually, so that a proper flush is secured.

To the well-known exhibits of *Mr. George Jennings* we have the addition of an improved version of the Bower trap, which is to be called Jennings' patent ball trap. This is made of lead, and is to be used for trapping waste water pipes, &c. In the Bower trap an elastic ball floats up against the inlet, and if left unused for some time so that the water would evaporate, the ball would fall and the seal be broken. In the Jennings trap the inlet curves upwards with a hood over it which enables the ball to rise to let water pass, but makes it fall on to and close the inlet directly the water has ceased to flow. Mr. Jennings also exhibited some excellent tanks which flush urinals automatically at regulated intervals. The *Sanitary Engineering and Ventilating Company* showed some good but somewhat expensive valve closets to which they have adapted the Bower trap to protect the overflow. This company has done much good service in grouping together various well known patents with which they help to familiarise the public.

In respect to ventilation, there were many interesting exhibits. *Messrs. Verity Brothers* had a large display of their water-power ventilators; they have also introduced a new cowl, which seems to be a somewhat expensive modification of the Archimedian screw.

Ellison's Conical Ventilators, already mentioned in our first notice, are more original; while his patent air-diffusers, converting ornamental shields or old china plate into ventilators give promise of great success. The principle is very simple. In front of a small square opening in the wall, communicating with the outer air, a shield or frame-work holding a picture or a china plate is affixed. By bringing this forward an inch or two the air rushes in, but, striking the back of the shield, is scattered in different directions instead of creating a draught. On pushing the shield back tightly against the wall the inlet is closed. Thus the supply of air can be regulated by the position of the wall ornamentation.

Messrs. C. Kite & Co. exhibited an exhaust ventilator, and what is more original, an inlet ventilator. The latter would be especially useful for the ventilation of house-drains where an opening at each end is necessary, and a regular current of air must be maintained. The inlet ventilator would also be very serviceable in supplying air to the cabins of ships. Their improved Dormer ventilators for the roofs of churches, factories, &c., have met with considerable approval, and their moderate charges are calculated to increase their well-merited popularity.

Messrs. Comyn, Ching, & Co. argue that exhausts do not act when there is no wind, and very often give rise to a down draught. They, therefore, propose a cowl containing a sort of pyramid or cone-shaped wire framework, around which are skilfully balanced mica valves. As the air within becomes vitiated, it rises, lifts these valves, and passes out; but if the cold outer air rushes past and closes the valves no down draught is possible. The finest workmanship and accuracy of action do this firm great credit.

The *Autothermarkon* was certainly one of the most ingenious inventions within the exhibition. A little box is let into the wall, and inside there is a pivoted valve. Two bands of equal length of iron and zinc, each end affixed to a rigid stop, expand according to the amount of heat brought to bear upon them. By their expansion they open the valve within the box or ventilator, and let cooler air in. The amount of heat desired in the room can thus be regulated, for the action of the expanding band upon the valve can be fixed so as to correspond with any degree of heat.

Mr. William Ramsey is helping to propagate Jewell's system of drainage and ventilation, and patent joints for connecting stoneware basins with cast-iron pipes. This same firm has a cistern lined with glass, and ball-cocks of glass, which assist in the maintenance of cleanliness, and a very elegant and simple floral art ventilator by which air is admitted into the room above a window-garden.

MISCELLANEOUS NOTICES.

We have received from *Messrs. W. H. Schieffelin & Co.* of New York samples of their pills, with a request that we will give them an early notice. This we do the more readily as from the loss of their consignment in the *Britannic* they could only show on the opening day of the exhibition an almost empty case. Their preparations are as yet but little known in this country, and it was at first supposed that their speciality was sugar-coated pills. It is satisfactory to learn that this is not the case, and that their pills are "soluble"-coated, and not "sugar"-coated. The exact composition of the covering is, we understand, a secret, and although there is undoubtedly an objection to the use of secret preparations, it can hardly be urged in this case, as the soluble coating, we may rest assured, contains nothing more injurious than gum and gelatine. It is claimed for these pills that the mass is worked to the highest degree of uniform intermix-

ture, and subdivided with scrupulous exactness. We are glad to receive this assurance, as we were inclined to think from an examination of sections of some of the pills that they were somewhat wanting in uniformity. The podophyllin pills especially seemed to be speckled, as if they were imperfectly ground, and if such were the case it would undoubtedly impair their efficacy. It is, of course, most important that pills, if covered at all, should be perfectly sealed; and we should have been glad to have received some explanation of the perforation or puncture which is seen in many of these preparations, for when the pill-mass is exposed to the air it naturally deteriorates. It would almost seem as if the pills before being coated were stuck on pins and then dipped in the solution and allowed to dry. This method is by no means new, and was in fact described in Mohr and Redwood's Practical Pharmacy over thirty years ago. The coating is soluble, and is so transparent as to reveal the colour of the mass beneath. Messrs. Schieffelin and Co. have obtained a second-class award for their preparations, and the pills, as they become better known, will doubtless receive the consideration they deserve.

Messrs. Burroughs and Wellcome exhibited a very useful apparatus for inhaling the vapour of chloride of ammonium. In inhalation, air is drawn into a chamber containing hydrochloric acid through an inlet plugged with cotton wool saturated with ammonia; and the vapour is then drawn on into a second chamber containing water and there washed. By this means the vapour inhaled is always kept of a neutral reaction. If desired, other medicaments can be combined with the sal ammoniac vapours by adding them to the water. It is a very efficient apparatus. We have been also struck with some tablets containing alkaloids for hypodermic injection shown by this firm. The tiny tablets are made of a quarter of a grain of sulphate of soda with the desired alkaloid. They are thus very readily soluble, and not at all irritating; they are carried in a very small bottle which easily fits into a hypodermic syringe case. The absorbent cotton wool of this firm is a fine specimen of wool, beautifully soft, really absorbent, and quite free from chemicals.

McKesson and Robbins of New York, exhibited, per Messrs. Burroughs and Wellcome, a large variety of alkaloids and formulæ of the British Pharmacopœia put up in the form of ovoid capsuled pills. They are evidently a most decided improvement over the ordinary round pills, for patients who reject round pills will swallow these with great facility. They are very soluble, requiring only half a minute to completely dissolve the covering, when one is placed in the mouth; the mass is in a very soft condition, as glycerine is the excipient employed for the quinine and other drugs of a similar character. The colour of every drug is distinctly shown through the perfectly transparent gelatine, while the covering, not being porous, completely seals all changeable substances from the oxidising influences of the atmosphere. In every respect they are most excellent pills.

Mr. Alfred Bishop's granular effervescent salts have long been favourably known to the profession. He has more recently introduced the effervescing citrate of caffeine, thus affording an exceedingly agreeable means of administering this valuable remedy for headache.

Messrs. Horn and Son exhibited, in addition to other articles, their very useful Digitorum, which is a simple contrivance for exercising the muscles of the fingers in cases of paralysis, &c. The instrument consists of a case with five notes like piano keys, with a sliding rest for the hand. Both the depth of the touch and the pressure can be regulated, and by the index the progress made can be registered.

R. G. Winter and Co. had a case of bandages, lint, and cotton wool. In addition to calico bandages, white and unbleached, of various qualities, and all rolled without much frayed-out edges, were some very good absorbent bandages of two qualities, one very fine. A novelty was a dark cotton bandage for out-door wear, not so conspicuous as the lighter colour. The lints and wool were good specimens.

Chemische Fabrik auf Actien, formerly E. Schering, Berlin, had among their other exhibits a large specimen of cinnamic acid, which is recommended as an antiseptic. It is made synthetically, and sold at a moderate price. It is odourless, almost tasteless, and not poisonous, in appearance like benzoic acid; it is freely soluble in spirit, but only slightly soluble in water, oil, vaseline, &c. It has been already tried in von Langenbeck's wards in Berlin.

Symes and Co., of Liverpool, exhibited two very excellent remedial agents prepared in a permanent and reliable form —namely, Lac Bismuthi and Lac Bismuthi et Cerii. Although bismuth and cerium have both long been in use, there has been a want of some stable and agreeable form for administering them. In this preparation this difficulty has been overcome. Mr. Symes also exhibits a "urethral irrigator" with the improved velvet-eyed catheter devised by Mr. Reginald Harrison. Several improvements have been made in the construction of the irrigator.

[In THE LANCET of July 30th the name of Mr. Medland, an exhibitor of excellent microscopic cabinets, was by an oversight printed "Newland."]

HEALTH OF THE ARMY.

No. II.

THE average strength of the European troops in India during the year 1879, exclusive of those employed in Afghanistan, was 49,537; the admissions into hospital among them amounted to 1912 per 1000, the deaths to 25·88, the constantly non-effective from sickness to 74·16, and the invalids sent to England to 47·14. These ratios are all considerably higher than in 1878, but the increase in the admissions and mean sick took place almost entirely in Bengal and Bombay, and that of the deaths in Bengal only, the proportion in Madras and Bombay having been more than 5 per 1000 lower than in that year.

In Bengal the admissions from an average force of 29,129 men were in the ratio of 2020, the deaths of 32·06, the invalids sent home of 43·66, and the constantly sick of 76·70 per 1000 of mean strength. Except as regards the invalids sent to England, of whom there was only a very slight increase, these ratios show an enormous excess above the average, amounting in the admissions to 544, in the deaths to 10·48, and in the mean sick to 19·34 per 1000. Paroxysmal fevers caused much the greater part of this in the admissions, but there has also been an increase in those of the respiratory, digestive, and urinary systems, and in cases returned under the head of debility, in most instances a sequence of fever. The excess in the ratio of deaths was due chiefly to cholera, but also in a lesser degree to continued and paroxysmal fevers, tubercular diseases, and those of the nervous and digestive systems. But the health of the troops varied greatly in the different Military Divisions, the admissions ranging between 1393 in the Saugor and 2925 in the Peshawar, and the deaths between 9·82 per 1000 in the Presidency and 116·60 in the Peshawar divisions. The admissions and deaths were under the average of the whole command for the last ten years in the Presidency, Oudh, Rohilcund, and Saugor divisions; in all the others they were greatly in excess of it as regards the admissions, and, with the exception of Allahabad, also as regards the deaths. Peshawar continues to maintain its character as being the most unhealthy division in Bengal, the admissions having been 2925, and the deaths 116·60 per 1000, the high ratio of the former chiefly due to fever, and of the latter to cholera, which caused a death-rate in it of 77·38 per 1000 of the strength. The Rawal Pindi ranks next to the Peshawar division as regards mortality, the ratio having been 47·88 per 1000, of which 15·11 were from cholera. The Lahore division furnished very nearly the same proportion of cases of fever as the Peshawar, but they were apparently of a much milder type, the deaths having been in the former only 2·53 per 1000, while in the latter they were 12·90. Eruptive fevers appear to have prevailed to a considerable extent in the Meerut division, the admissions having been as high as 22·7 per 1000; but no information is given as to the special disease prevalent, whether it was small-pox, scarlet fever, or dengue. Continued fever furnished a proportion of cases above the average in the Peshawar, Gwalior, Presidency, and Allahabad divisions, and a high rate of mortality in the Rawal Pindi, Peshawar, Meerut, Oudh, and Gwalior divisions. Of the 118 deaths by this group 117 were returned as enteric fever. The stations at which this type prevailed most were Lucknow, Morar, Muttra, Subathu, Meean Meer, Rawal Pindi, and Sialkote. As the subject of enteric fever in India has of late attracted a good deal of

attention, we submit the following table, showing its prevalence and mortality in each of the military divisions in Bengal in 1879:—

Divisions.	Enteric fever.		Ratio per 1000 of strength.	
	Cases.	Deaths.	Cases.	Deaths.
Presidency ...	1	1	·7	·70
Allahabad ...	20	9	5·9	2·66
Oudh ...	53	13	19·6	4·81
Rohilcund ...	7	3	4·1	1·75
Saugor ...	1	1	1·06	1·06
Gwalior ...	15	8	8·4	4·50
Meerut ...	34	17	10·3	5·26
Sirhind ...	40	8	16·5	3·30
Lahore ...	18	6	5·7	1·90
Rawal Pindi ...	58	33	16·4	9·24
Peshawar ...	26	11	14·0	5·91
Hill Depôts ...	10	2	7·1	1·42
Troops on march ...	8	5	5·2	3·24

The highest proportion of cases occurred in the Oudh division, chiefly at Lucknow, and the highest death-rate in the Rawal Pindi, Sialkote and Rawal Pindi being the stations most affected. The deaths were in the proportion of two in every five cases. The disease was most prevalent in the second and third quarters of the year, and the deaths occurred, 13 in the first quarter, 44 in the second, 39 in the third, and 20 in the fourth.

Paroxysmal fevers were more prevalent than in 1878 in all the divisions except the Presidency, in which there was a decrease of 149 per 1000. The divisions which suffered most were Meerut, Rawal Pindi, Peshawar, the hill depôts, Gwalior, and Allahabad. There was an increase also in the mortality in all except the Sirhind and Lahore divisions, but it was most marked in those of Peshawar, Gwalior, and Rawul Pindi, and among the troops on the march.

Cholera was the cause of a very high rate of mortality, amounting to 8·27 per 1000 of the strength. But even this seems to be understated, for by a table (No. xviii. in the Appendix) "taken from the Principal Medical Officer's report," it appears that there were 384 cases and 283 deaths, exclusive of 248 cases and 119 deaths among troops on the march and of 323 cases and 227 deaths on field service, while the total numbers in the general abstract are only 281 cases and 241 deaths. In explanation of this very great difference, it is stated that "the chief cause of the discrepancy will probably be found to be that Abstract No. xviii., based on the monthly returns, contains the cases and deaths occurring among the various columns and detachments marching towards or returning from Afghanistan. It is intended, as already stated, to furnish a general medical history of the two Afghan campaigns of 1878–79–80; these cases are therefore excluded from the annual returns of troops stationed in Bengal throughout the year." This explanation, however, is not very satisfactory, for if the cases occurred among troops before crossing the north-west frontier on field service, they ought clearly to have been included in the statistics of Bengal; and even if the whole of the cases occurring among troops on the march be omitted, there is still a deficiency in the general abstract of 89 cases and 37 deaths. We regret also that no detailed history of the progress of the disease is given, the only statement being that the table "very strikingly indicates the sweep of the advancing wave of cholera over the north-west and Punjaub into Afghanistan." A brief account of the dates of its appearance at the different principal military stations, of the measures taken to check its progress, and the result of such measures, would have added greatly to the value of the report. The disease does not appear to have prevailed to any extent in the Presidency, Allahabad, Oudh, Rohilcund, or Saugor divisions, but it proved a cause of considerable mortality at Morar, Meerut, Umballa, Subathu, Meean Meer, and throughout the Rawal Pindi and Peshawar divisions. At Peshawar and its cholera camp, 171 cases and 121 deaths are returned in an average strength of 1861 men. The troops on the march had 248 cases and 119 deaths, the average strength being stated as 1540. The prevalence of the disease was confined to the second and third quarters of the year, about three-fourths of the cases and two-thirds of the deaths having occurred in the former.

Of 22 admissions under the head of scurvy and purpura, 11 occurred in the 68th Regiment at Meean Meer. It is stated that there had been no deficiency of vegetables throughout the year to which this could be attributed, but in all the cases the patients had been very subject to ague, and had become anæmic in consequence. The mortality by diseases of the nervous system was very high at Peshawar and among the troops on the march, presumably from the occurrence of cases of sunstroke, but no detailed information is given on this point. Dysentery, diarrhœa, and hepatitis were much more prevalent than in the preceding year at Rawul Pindi, Peshawar, the hill depôts, and among troops on the march, and the mortality was considerable there and in the Gwalior division; the third quarter of the year was that in which the cases greatly exceeded the average.

A table in the appendix shows the relative mortality and invaliding of officers, non-commissioned officers, and privates in the Bengal command in 1879, and on the average of the ten preceding years, of which the following are the results:—

Ratio per 1000 of mean strength.	Officers.	N. C. Officers.	Privates.
Died..... 1869–78 ...	16·25 ...	27·33 ...	19·61
,, 1879 ...	36·82 ...	42·90 ...	41·72
Invalided 1869–78 ...	53·75 ...	44·62 ...	38·97
,, 1879 ...	61·69 ...	47·82 ...	41·51

It will be seen from this summary that the increase of the mortality in 1879 affected all ranks. The ratios do not correspond exactly with those given in the body of the report, but this may have arisen from some of the deaths in the field force having been included, and it may be presumed that the difference affects all ranks equally. The non-commissioned officers have a considerably higher death-rate than the privates, but this is probably due to the fact that they are mostly older men, and in India the ratio of mortality advances rapidly with age—very much more so than in temperate climates. The death-rate of the officers is lower than that of the soldiers; but this may to some extent be a result of the greater facilities they enjoy of returning to England when a change is deemed advisable for the recovery of their health—a view which is borne out by the proportion invalided exceeding so considerably that of the other ranks. In the ratio of deaths for 1879 are included "killed in action, and died from wounds received in battle." These amounted among the officers to 4·98, non-commissioned officers to 2·81, and privates to 1·59 per 1000 of mean strength, so that the risk of officers in action appears to be nearly double that of non-commissioned officers, and rather more than thrice that of privates.

In Madras the admissions into hospital were 1403, the deaths 17·70, the invaliding 44·45, and the constantly sick 65·19 per 1000 of the strength in a force of 10,507 men. The admissions and mean sick were above, but the deaths below, the average of the command. The excess in the admissions was chiefly in paroxysmal fevers, and the decrease in the deaths in those by tubercular diseases and of the digestive system. The increase in the admissions took place in the Presidency and Mysore divisions, all the stations in them, except St. Thomas's Mount, giving a considerably higher proportion than in 1878. The reduction in the death-rate was very marked in the Hyderabad division and at the convalescent depôts. Continued fevers were much less prevalent than in the preceding year in the Hyderabad division and at the depôts. Twelve cases were returned as enteric fever, with 10 deaths; 5 of the cases occurred at Bangalore, 4 at Kamptee, 2 at Tonghoo, and 1 at Secunderabad; 5 of the cases were men between the ages of twenty and twenty-two, and 7 were men under one year of service in India. Paroxysmal fevers were very prevalent in the Presidency and Mysore divisions, but were not a cause of much mortality. The troops enjoyed a marked exemption from cholera, except those at Thayetmyo in Burmah, among whom 34 cases and 22 deaths occurred, being in the ratio respectively of 31·1 and 20·11 per 1000 of the strength at that station. No details are given of the epidemic, but it is stated that its occurrence coincided nearly in point of time with the drying up of ground inundated by adjoining rivers. The proportion of deaths by tubercular diseases was lower than in 1878 in all the divisions except Burmah, and even there it only amounted to 1·44 per 1000. The deaths by diseases of the nervous system, though lower than in 1878, amounted to 2·19 per 1000 of the strength. Thirty-six admissions and 13 deaths were from sunstroke, being in the ratio of 3·4 and 1·24 respectively; "a third of the whole admissions and nearly a sixth of the deaths happened in a company of infantry marching in the month of May in the course of an ordinary relief." In diseases of the digestive

system, although there has been an increase in the admissions by dysentery, diarrhœa, and hepatitis in the Mysore division, there has been no corresponding increase in the mortality, and in all the other divisions there has been a very satisfactory reduction in both the cases and the deaths. A table in the appendix shows the sickness and mortality in the different arms of the service in the Madras command to have been as follows:—

Per 1000 of mean strength.

	Admitted.	Died.	Invalided.	Constantly sick.
Cavalry	1262	18·26	51·56	89·15
Artillery	1514	21·23	31·65	68·81
Infantry	1385	14·62	47·98	63·20

This shows the cavalry to have had the smallest proportion of cases; the artillery, of invaliding; and the infantry, of deaths and constantly sick. The cause of the very high ratio constantly sick in the cavalry appears to deserve investigation. In both corps—the 12th Lancers and the 14th Hussars—it was greatly above the average of the command.

In Bombay, in a force of 9901 men, the admissions into hospital were in the ratio of 2134, the deaths of 16·34, the invalids of 60·19, and the constantly sick of 76·53 per 1000. The admissions and invaliding exceed by one-half the average of the last ten years; the deaths are slightly under, and the mean sick 22 per 1000 above, that average. The excess in the admissions has been chiefly in those by paroxysmal fever, but there has also been an increase in syphilis. The deaths were 5 per 1000 lower than in 1878, but only ·63 per 1000 under the average of the ten years. The decrease upon the ratio for 1878 was nearly all in cholera, by which only 3 deaths occurred, as against 47 in that year. Continued fevers were below the average both as regards cases and deaths. Of enteric fever 28 cases were returned, and 17 deaths—both considerably under the amount in the preceding year. The cases did not exceed two or three at any station, except Nasirabad, where there were 8, with 6 deaths. It is stated that "the young soldiers recently arrived in the country showed a peculiar predisposition to the disease." Paroxysmal fevers furnished more than double the average of admissions, but with a very trifling increase in the deaths; the increase in the cases was confined to ague, and an excessive rainfall for two years was the cause assigned for its great prevalence. Diseases of the respiratory system were considerably above the average both in prevalence and mortality, the latter being as high as 2·53 per 1000. It is stated that 11 out of 25 deaths occurred in the 6th Regiment, "the men of which were much debilitated from malaria during service in Bengal. Five of the deaths[1] occurred in this corps on its passage from Bombay to Aden in the month of November, and complaint was made of an absence of proper warm clothing for such weakly men in the cold season. The other 6 occurred at Aden soon after its arrival." There was a marked decrease in diseases of the digestive system in all the divisions, but an increase among troops on the march; and the deaths show a similar decrease, except among the convalescents and invalids.

The relative health of the men composing the different arms of the service in Bombay was as follows:—

Ratio per 1000 of mean strength.

	Cases.	Deaths.	Invaliding.
Cavalry	1578	13·89	16·67
Artillery	2189	16·58	69·89
Infantry	2156	15·32	59·72

From this it would appear that the cavalry are the most healthy and the artillery the least. Unfortunately, the mean sick for the different arms is not stated, so that we do not know whether the cavalry has a very high proportion constantly of non-effective from sickness as in Madras.

The mortality and invaliding in the different grades is shown in the following table:—

Ratio per 1000 of mean strength.

	Died.		Invalided.	
	1879.	1869–78.	1879.	1869–78.
Officers	8.04	11·35	53·62	90·35
Non-commissioned officers	16·38	21·13	58·50	41·68
Privates	15·99	15·13	61·28	40·18

The same leading features are observed here as in the similar table for Bengal—the lower death-rate of the officers and the higher of the non-commissioned officers as compared with the privates, and the much greater facilities enjoyed by the officers of being able to return to England when desirable on account of their health. In 1879 the invaliding of the officers was exceptionally low, perhaps in consequence of the possibility of their services being required in the field.

There was nothing which appears to call for special notice regarding the health of the troops on board ship, except that the fact of the death-rate among troops proceeding from one station abroad to another being 8·12 per 1000 lower than in 1878 may possibly be accounted for by the omission to which we have referred above with reference to the 6th Regiment on its passage from Bombay to Aden.

We have endeavoured in these remarks to summarise the leading points connected with the health of the Army in 1879, as shown in the Blue Book before us. We may observe that there is an entire omission from the volume of that portion of the report which in former years was furnished by the head of the Medical Branch, and also of the interesting and useful report on the progress of hygiene during the year. We are informed that it was decided by the Treasury Committee that it was unnecessary to include such information in the report presented to Parliament, but that it will be published as an appendix for circulation among the medical officers and the members of the profession. When this is done we shall take an opportunity of bringing to the notice of our readers anything that may appear to be of sufficient interest, and at the same time advert to some other matters in the report, such as recruiting, &c., which we have been obliged to pass over at present from want of space.

[1] We cannot see why these deaths were included in the Bombay command, instead of among "troops on board ship proceeding from one station to another."

DR. BRAXTON HICKS ON INTERMITTENT CONTRACTION OF THE UTERUS.

To the Editor of THE LANCET.

SIR,—In a letter on the above subject, which appeared in THE LANCET of last week, Dr. Hicks writes: "I have never found any condition of the uterus but that of pregnancy attended with these frequent contractions. I have never heard of anyone who has narrated such a case." Permit me to refer Dr. Hicks to the following observations from a paper "On some Periodical Changes which occur in Fibroid Tumours, and their Significance," published in THE LANCET of June 5th, 1880: "I thought on the 12th that the tumour enlarged and diminished during examination. There was no question about this on the 13th, for while the hand was on the tumour it decreased and became harder, until the upper border was rather more than two inches from the umbilicus, and it relaxed and increased until the upper border was about one inch from the umbilicus." Such contractions were repeatedly observed, although no further reference is made to them, inasmuch as the aim of the paper was to emphasise other and periodical changes in fibroid tumours.

I remain, Sir, yours truly,

Harley-street, W., Aug. 29th, 1881. JOHN WILLIAMS.

To the Editor of THE LANCET.

SIR,—In a letter published in to-day's LANCET Dr. Braxton Hicks says that he is not aware that anyone has yet observed rhythmical contractions of the uterus, such as those which he has shown to occur in pregnancy, except in that condition.

Will he permit me to ask his attention to a case which I published in the *Medical Times and Gazette*, vol ii., 1879, p. 98, and the termination of which will be found in the *Obstetrical Journal*, vol. viii., 1880, p. 394? In this case, which was one of a soft uterine fibroid, rhythmical contractions of the uterus, and corresponding variations in loudness of the uterine souffle, were present.

If I may submit my own opinion as to the diagnostic value of these contractions, it at present is that their existence in an abdominal tumour is conclusive that the tumour is uterine; but I do not think they help us further as to its nature. When the tumour is small and the abdominal wall thick, they may be difficult to make out, and in such a case I would suggest that the variations in loudness of the uterine souffle which accompany these contractions, and which were observed in my case, would be a sign equally conclusive, and perhaps more easily observed.—Yours, &c.,

G. ERNEST HERMAN.

West-street, Finsbury-circus, August 27th, 1881.

THE LANCET.

LONDON: SATURDAY, SEPTEMBER 3, 1881.

VIEWED from a medical standpoint, the session of Parliament has been very uneventful. Of legislation on medical or sanitary questions there has been almost none. It is not easy to get up any enthusiasm over the Alkali Works Bill, or the Coroners (Ireland) Bill. The number of questions that have been put to ministers on subjects in connexion with Public Health has been very great. But many of these have been trivial, and almost paltry in character, and go to illustrate the necessity of some restraint on this right of members. Mr. PETER TAYLOR has exhibited his hostility to the Vaccination Acts by a weekly batch of questions to Mr. DODSON, which he had of course no difficulty in answering. Mr. BURT, the generally sensible member for Newcastle, who has brought himself under the penalties of the Acts, thought it not inconsistent with his dignity, and no abuse of his privilege as a member of the House, to put questions to the Government on the construction of the Acts which any lawyer's clerk could have answered.

The prevalence and mortality of small-pox, on the other hand, have been a scandal alike to legislation and to the department charged with the administration of the Public Health Acts, and have been almost nightly the subject of questions to the President of the Local Government Board. Dr. CAMERON, with much show of reason, sought an opportunity for moving a formal vote of censure on the Board for incapacity. He had to content himself with calling attention to the shortcomings of the Board on a motion of supply, and said that if prompt measures had been taken 1800 lives would have been saved, and 10,000 cases of this loathsome disease prevented. Mr. DODSON had to admit that the local authorities were paralysed in their action by threats of litigation like that which has been so successfully used against the managers of the Hampstead Hospital; and when asked if he was prepared to promote legislation which would give local authorities more power and security in doing what the Legislature created them to do, he evaded the question. Anything more discreditable to the Legislature and to the Local Government Board could scarcely be found than the existing state of the law as regards infectious diseases and hospitals for their isolation.

At the beginning of the session many petitions were presented, praying for inquiry into the East India Medical Service, which have had good effect.

The Water-supply and the Fish-supply of the metropolis have been frequently mooted in Parliament, but little has been done to advance either the one or the other, unless we except some words by the Home Secretary, which appear to have stirred up the Corporation of London from its apathy on the state of the fish-supply.

If nothing actual has been done with regard to legislation on medical subjects, we have to acknowledge with thankfulness the appointment by the Government of a Royal Commission to inquire into the working of the existing Medical Acts. Two or three Medical Bills were introduced into the House, but the Government doubtless felt that investigation further than that carried out by the Select Committee of 1879 was needed before legislation could be satisfactorily undertaken. They were asked by Mr. ERRINGTON to reappoint a Select Committee, but preferred to have an inquiry by a Royal Commission. We regarded this course as evidence of a wish on the part of the Government to settle this question for many years on a sound and sensible basis; and we have seen nothing in the action of the Royal Commission so far to make us doubt the propriety of this view of the course taken by the Ministry, and of their motives.

We will not withhold the expression of our satisfaction at one Act of the Session, though its medical bearing may not appear obvious to the uninitiated. We refer to the Sunday Closing Act for Wales. As medical journalists, we are unfavourable to all extreme views of the action of alcohol, and to all extreme remedies for its abuse by the people. But it is none the less satisfactory to us to see great popular demands in different divisions of the country for the correction of this abuse, and we deem our rulers extremely wise in acceding to such demands. Lord ABERDARE's statement of the reduction in the quantity of alcohol consumed which has followed similar legislation in Scotland and in Ireland was not gainsaid; and both education and legislation have yet much to do before the consumption of alcohol can be brought within the limits which physiology and experience would dictate.

Finally, we must not close our notice of a Session which has practically been devoted to one measure for only one division of the kingdom, and which yet occupied seven months, without expressing our growing conviction that Parliament will need very serious reform, both in its composition and procedure, if it is to retain the respect of those who are in a position to see more deeply than others the evils of society and the remedies which are urgently demanded.

THE treatment of wounds always occupies so large a share of the attention of every surgeon, that it was only meet that the several important questions in connexion with it should have been freely raised at the recent Congress. The Surgical Section devoted a whole morning to the consideration of the means best calculated to secure primary union of wounds, and although there were some differences of opinion, in the main the old classical principles were reasserted. As in so many other cases, it is well to approach this subject through the study of the simplest cases. In the treatment of a simple cut of the finger, or after the operation for hare-lip, the essential principles to observe are to adjust as perfectly as possible the clean-cut surfaces, hold them in exact apposition, and keep the part at rest and free from all disturbance until union has occurred. A simple observance of these particulars is all that is necessary to obtain union by first intention, and every one of these is essential. If the surfaces are not placed in apposition, if they are not retained in contact, or are not at rest, union by first intention does not occur. Now in all this we have not had occasion to say anything about germs, or sprays, or antiseptics. We suppose no one regards the one as dangerous or the other essential in treating such simple incisions; and Professor

LISTER has himself brought forward evidence to show that healthy blood-serum and blood-clot are not favourable nidus for the development of bacteria. We may advance further to large incised wounds, such as of the abdominal wall in ovariotomy, where observance of the same principles is sufficient to secure primary union. But if we go beyond this we reach cases of larger or irregular wounds, such as in an amputation, where the conditions are seriously modified. If we attempt to carry out the treatment on the same lines we are at once confronted with the circumstance that the *exact apposition* of the wound surfaces is impossible; the edges of flaps may be brought together and carefully united, but no suturing, be it ever so skilful, is able to place every portion of wound surface in close contact with some other portion of wound surface and retain it so. One of the necessary conditions for primary union being wanting, failure results. As a consequence of this want of exact apposition, fluid accumulates in the spaces and interstices, and may so distend them as to irritate the nerves of the part and thus lead to inflammation, or may decompose and then excite inflammation by its directly irritating properties, or, being absorbed, may lead to general blood-poisoning. In either case the wound fails to unite throughout by first intention. The difficulty thus raised has presented itself in various ways to many minds, and hence has arisen the divergence in practice. Some surgeons, such as Messrs. SAVORY and GAMGEE, make it their aim to carry out the three cardinal principles of wound treatment as far as possible in these complicated cases, and then by simple means prevent the ills to which they are exposed. They urge that such wounds should be treated in a great degree like simple wounds; that the parts—not the edges alone—should be adjusted with the greatest care, and retained in that position, and perfect rest secured, while the fluid exuded into the unavoidable spaces should be drained off and received into some kind of dressing in which its decomposition is prevented. The special means used are pressure, drainage-tubes, and an absorbent antiseptic dressing. Another school of surgeons, while not professing to neglect the principles named, are yet so impressed with the evils attending the decomposition of retained fluids, and rightly tracing such decomposition to the influence of minute organisms introduced from without, that they concentrate their attention—in some cases their sole attention—upon the prevention of the access of these "germs" to wounds. Here, at once, two new elements are introduced. First, some agent has to be used which acts destructively upon the "germs," and, as these germs are organic, they share to some extent the properties of all organised structures, and the strongest antiseptics are injurious in their action on the human body also. A very careful adjustment of means to ends is thus required, the imperfection of which has made us familiar with constitutional disturbance, amounting even to death, from the effects of the agent employed to ward off decomposition. The second element introduced arises from the fact that the effused fluids are organisable, and if preserved from contamination, even in large quantity, can organise and so cicatrise a wound. In one particular the divergence in practice has recently become greater, for while the one school of surgeons look upon primary union of a wound as the surest safeguard against septic mischief, the other school, confident in its own power of preventing septic mischief, will forego the primary union of a wound in attaining this end. The difference between the two parties may, indeed, be roughly expressed thus, that while the one, confronted by complex conditions, proceeds as far as possible along the lines observed in the simpler, the other attacks them by entirely novel, methods. We say "roughly" advisedly, because, as was well pointed out in one of the recent debates, where primary union is achieved, sepsis is prevented by that very condition. Which of these two lines of practice will ultimately prove the more successful it would be foolish and useless to attempt to predict. At present the general statistics of the one bear comparison with those of the other, and it may be that each will have to accept a part of the other, or seek its aid in certain classes of cases.

We have, of course, been referring to so-called "Listerism," but we have purposely avoided using that name, and one reason for so doing is that it is unjust to so great a man to use his name in connexion merely with a special means of dressing wounds. We consider Mr. LISTER'S work as far too great to be narrowed down to a mere matter of spray and gauze. It is not a mode of dressing wounds that he has introduced, but a surgical revolution that he has accomplished. There is not a hospital in the whole civilised world that has not been affected by his teaching and labours, even if a spray, or gauze, or even carbolic acid, have never been found in its wards. He has gone far towards abolishing suppuration, and taught us all to consider it a preventable accident in the healing of an operation wound. And it is to him above all others that we owe it that septic diseases are now generally held to be avoidable, and their occurrence a serious reproach. His work, in fact, has been far greater than the perfecting the form of dressing that bears his name, and he can fairly count among his disciples many whose outward ritual differs *in toto* from his own.

It is interesting to notice the development which the antiseptic method of dressing wounds is undergoing. Carbolic acid has evidently had its day; the cause of immense good, its use has yet been attended with such inconveniences, and in some cases peril, that it has been, or shortly will be, replaced by other and safer means. The spray, which by some has been considered one of the pillars of the system, has been abandoned by many of Mr. LISTER'S most ardent followers, and he himself has spoken of it as likely to become unnecessary. The gauze, too, is being replaced in some hospitals by more absorbent, softer, and more elastic materials; so that ESMARCH—an antiseptic surgeon whose brilliant statistics would be incredible from any less trustworthy source—dresses his cases far more after the fashion of Mr. GAMGEE than that of Mr. LISTER, and has shown that the transition from one to the other is neither difficult nor illogical. We cannot doubt that, amid all this development and change, surgery is advancing, and truth is being preserved; and Mr. LISTER is far too wise a man to think that finality has been attained in the so-called "Listerian" dressing. Side by side, however, with this development, another fact is prominent. Our hospitals, previously dirty, have become clean; surgeons, before too careless, are now scrupulous in their attention to cleanliness in all its details. And, as Mr. LISTER himself says, it is "bits of dirt" that do the harm. Is it that his crusade has to a very

large extent—would we could say entirely!—prevented these "bits of dirt" from being deposited on or in wounds, and that so previously necessary antiseptic precautions are now dispensed with in safety? Or did his earlier teachings err in considering the invisible floating particles in the air as more dangerous than they really are? Whatever may be the truth in the matter, it seems plain that the great lesson of antiseptic surgery has been widely learnt, and bids fair soon to be universally mastered. We now want to assign it its proper place in the management of wounds, as one of the elements—not the sole—to be considered by the surgeon; and it will not be surprising should the next few years witness a great simplification of its details as a juster conception of its influence and worth is attained. The danger has been that the "system" should blind some of its followers to the fact that Nature works along certain lines or according to certain principles, all of which must be understood by the successful surgeon; and surely when primary union of a wound is dispensed with in order that the "system" may be carried out, this danger has become real indeed!

WE return to the subject of the treatment of the insane in private houses by general practitioners and as a part of general medicine, in order that we may be understood to endorse at leisure and editorially the opinion which has been already expressed in a passing note of the week. It is our belief that the direct and personal treatment of mental disease in the cases of single patients falling and remaining under the care of practitioners who are *not* specialists, but who are prepared to make the study of such cases of disorder of the mind as occur in their ordinary practice an integral part of their professional duty, affords the best chance of recovery for this class of patients, and will do more to advance the scientific investigation of mind disease, or brain disease with mind symptoms, than the practice of specialists. Making a specialty of "mental disease," or what is called "psychological medicine," is like making a specialty of indigestion, of *malaise*, or of abnormal states of the secretions apart from the organic lesions or general disturbances with which these special classes of symptoms are associated. In short, the specialty of mental derangement is a specialty of *symptoms* practically dissociated from their causes and the actual morbid conditions of which they are the indicative phenomena or results.

As a first step in the direction of a substantial improvement in the treatment of the insane, we must insist on the return of mind diseases to the category of general medicine, and the abolition of the asylum system and the specialty of medico-psychology. The position thus assumed and unreservedly stated will doubtless be hotly assailed by the members and supporters of the specialty; and it must therefore be our first care to explain that we do not either ignore the humanity of the work which many of these gentlemen have done among the insane, or fail in our appreciation of the services their enterprise has rendered to the cause of scientific medicine; but we cannot on that account overlook the fact that, however valuable may have been the contributions which medico-psychology has made to medicine, it has done very little, if anything, during the last fifty years, to augment the chances of recovery for the insane. It is a deeply regrettable but undeniable fact, that the proportion of cures in lunacy has very slightly increased during the last half-century; while the baneful conviction that insanity is practically incurable has certainly extended and deepened among the specialists, without, so far as we can discover, either rhyme or reason.

Sixty years ago Dr. BURROWS wrote as follows: "Few popular errors are more prejudicial to the interests of humanity than that insanity is, commonly, incurable; and, consequently, that the application of remedies is supererogatory. If such opinion obtains, a person, though only at intervals insane, is in danger of being consigned to a fate worse than oblivious, his affairs to ruin, his family to despair, and society to the loss, perhaps, of a virtuous and useful member. *Nevertheless, nothing is more true or clear, than that a very large proportion of the insane recover the perfect use of their understanding.*" Again, in 1835 PRICHARD stated that "Dr. WILLIS declared that 9 lunatics out of 10 recovered if they were placed under his care within three months from the attack. Dr. BURROWS has reported 221 cures out of 242 recent cases. Dr. FINCH has stated that 61 out of 69 patients recovered who were received into his asylum within three months after the first attack of their disorder. From the experience obtained at the Retreat, near York .....it appears that 7 out of 8, or perhaps a larger proportion of recent cases, have terminated in recovery." It is idle to contend that these authorities did not know what "cures" really were. They were as close observers, and as well able to follow up their cases, as we are. Moreover, studying the statistics of insanity as far back as any trustworthy records of results exist, it is abundantly evident that the practice was as good—in the sense of being *successful*—then as now. The only great change which has taken place may be described as a metastasis of mistake from the lay population to the profession. Whereas when BURROWS denounced the "error" of supposing that "insanity is commonly incurable," as "prejudicial to the interests of humanity," it was a "popular" heresy—that is, as he used the term—wide-spread among the population. This most mischievous and enervating belief has now taken a morbid hold of the mind of the medical profession itself, and particularly impressed the "specialty," while a more healthy and hopeful opinion begins to prevail in the general community. It is this hopelessness, the pitiful outcome of fifty years of work and observation of mental disease from the specialist's standpoint, which constitutes the bane of asylum practice, and cripples the hands of those who, lacking faith, necessarily fail to cure.

The remedy, the only remedy, for this most unsatisfactory state of matters is to replace asylums by hospitals—we do not mean "hospitals" in name only, but in fact; to do away with the specialty, trammelled as it is with the asylum-system, asylum-methods, and asylum-views; and to recommence the study of mind disorder as an integral and inseparable part of general medicine. There are three great and grave reasons why this must be done. First, the treatment of the insane by association is a radical error in scientific policy. In the training of idiots who can only be taught by an appeal to the faculty of imitation, association is necessary. In the treatment of the insane, who must be treated *individually*, and on the bases of their idiosyncrasies, association is mischievous in its effects and consequences. If the morbid mind is not absolutely injured by the de-

pressing or distressing effects of association, the herding of lunatics together inevitably tends to the sacrifice of the personal claim on the physician's attention. The case is merged in the class; peculiarities of temperament, of mental constitution, and of the morbid state, are shut out of sight or destroyed by association; and we do not hesitate to affirm that these individual traits of character are the *only* clues to the personal and direct treatment—the best and only scientific treatment—of the insane. If patients who are simply classed and treated in droves *do* recover, their happy fate is not due to the measures adopted for their recovery, but is developed in spite of the circumstances in which they were placed. This is a bold assertion, but we are prepared to maintain it. A case of mental disease requires the closest *personal* study, the most direct and individualised method of treatment, and a full and clear recognition of the physical state, of which the mental derangement is simply one form of expression. All that is distinctive in the asylum system is bad, and opposed to the interests of cure. It is time to speak out clearly on this point, and the opportunity must be embraced.

The difficulties in the way of the treatment of the insane in private houses arise chiefly from the persistent neglect of "mental disease" in general medical study, which is the obvious result of the existence of a specialty. In his lack of acquaintance with the management of the insane the general practitioner calls in the assistance of an asylum attendant, and the moment that step is taken the prospect of cure is almost hopelessly clouded. The worst features of the asylum system are those with which the "experienced attendant" is familiar. He knows all the tricks and bad practices for the coercion of the insane, but is wholly ignorant of the information the general practitioner seeks at his hands. Better far treat a case on common-sense principles than "be shown how to treat it" by an asylum attendant. The management of the insane is a perfectly simple business. There is no "black art" or mystery. The sufferer is ill, and his illness is easily recognisable by the general practitioner in medicine who will take the same pains with the case as he would with an ordinary case of bodily disease. The principles and methods of treatment are the same as those which govern the treatment of general maladies. It is true that the mental phenomena need to be investigated more closely than the general physician, as a rule, investigates the mental condition of his patients; but, after all, it is with the *physical* state the practitioner has to deal. Classifications of mental disease are nearly all faulty, and they have as yet no practical bearing on treatment. The utmost purpose they serve is to cast deepening shadows of hopelessness on the cases classified. For example, if a man is said to have "general paralysis of the insane," he is at once branded as incurable, although recent explorations of nervous disease by scientific physicians—who are not medico-psychologists—go far to prove that even general paralysis is curable and may be cured, though not by asylum physicians or on asylum principles. We unhesitatingly declare in favour of the treatment of the insane in private houses, and against the asylum system. That imbecile and hopelessly demented patients must be put away in asylums we do not doubt, but acute cases of insanity should be treated by general practitioners in private houses, and we earnestly hope the profession may be moved to make the experiment of this mode of treatment on a large scale, and to give us the results of the endeavour. We shall be greatly disappointed if the cures effected by individual and personal treatment are not proportionally more numerous and more complete than those obtained by the system of treatment in classes which now prevails.

THE tenth Annual Report of the Local Government Board has been distributed from the Parliamentary Press. It relates to the proceedings of the Board during the financial year 1880-81, and forms with its appendices a bulky document of 692 pages. The multifarious and almost bewildering duties which this Department of the Government has to discharge admit of a seeming simplification by the excellent arrangement of the Report into three principal sections—namely, (1) the administration of the laws relating to the Relief of the Poor; (2) the administration of the laws affecting Local Government and the Public Health; and (3) Local Taxation and Valuation. Under these headings the several laws for the due administration of which the Local Government is responsible find their place, and the Report presents a general view of local government in England and Wales of the highest interest to the public and to local administrations. We have not unfrequently had to take exception and to criticise severely some of the proceedings of this Board; but having regard to the enormous magnitude of the interests which it has to supervise, and as they are presented in a general view in these annual reports, we are free to confess that the tendency of the Board's administration is to the advantage of the kingdom, and that the mischievous effects of former errors of policy are largely limited in practice by the common-sense of the kingdom, as manifested by local administrative bodies. The Public Health section of the Report, which most concerns us, is noteworthy perhaps more from what it omits than what it contains, as numerous points which have much excited public interest during the period to which the Report refers are simply passed over with a brief allusion, or altogether omitted from consideration. Thus, while a brief account is given of the rise and progress of the present epidemic of small-pox in the metropolis, the grave question arising out of the asserted injurious consequences caused by small-pox hospitals in the surrounding neighbourhood is merely referred to. The general tone, however, of the Report as a whole, it must be said, frankly predisposes to a lenient judgment of the Local Government Board in the exercise of its responsible functions.

The following points particularly attract attention in the Public Health section of the Report—namely, the question as to the appointment of district medical officers as medical officers of health, the result of analyses under the Sale of Food and Drugs Act, the vaccination returns and matters connected with vaccination, and the reports under the Metropolis Water Acts.

The further experience of the Board has confirmed its objections to the appointment of district medical officers as medical officers of health, and "especially to the appointment by rural sanitary authorities of several district medical officers of health, each acting as medical officer of health

within the district assigned to him for Poor-law purposes." In regard to this important subject, it is stated as the result of several inquiries made by medical inspectors of the Board concerning the sanitary administration of districts, that "the employment of numerous medical officers of health within our sanitary jurisdiction had in each case worked badly."

A considerable space is given to the results of analyses under the Sale of Food and Drugs Act. This Act has not yet been put so largely in force as is to be desired in view of the advantages to be derived from it, and the results obtained last year from its use were not, as a whole, so favourable as in the previous year, the percentage of adulteration recorded in 1880 being 15·9, as compared with 14·8 in 1879. "Spirits other than gin" (25·9) stood at the head of the list of articles adulterated, and milk (21·4) next in rank. In the metropolis no less than 27·5 per cent. of the samples of milk analysed were reported against. The improvement in the quality of this article which the Board had been able to record in the two previous years, was not maintained in 1880. "No doubt," observes the Board, "the ease and profit of milk adulteration make its suppression a matter of great difficulty." In regard to the important matter of drugs the Board writes, "A substantial improvement is shown, the proportion adulterated being little more than half what it was in 1879."

The vaccination returns dealt with relate to the year 1878, and it would appear that of the entire number of children born in that year, about 4¾ per cent. remain unaccounted for, as regards vaccination, in the returns. This proportion is larger by nearly ¼ per cent. than that of the children similarly unaccounted for in 1877. In the metropolis the percentage of children unaccounted for as to vaccination in 1878 was 7·1, and the average percentage in the years 1873–77, 8·1; and remarkable differences are found in the percentages in different parts of the metropolis. Thus, while the proportion of cases unaccounted for in Camberwell was 8·8 per cent., in the adjoining district of Lewisham it was only 2·6 per cent. The question of vaccination in the metropolis occupies the serious attention of the Board, and it accepts as reasonable an estimate that there are at least 200,000 unvaccinated persons now living in London. With reference to "animal vaccination," the Board expresses a regret that various causes have delayed the completion of the necessary organisation for providing a supply of calf lymph, but trusts before the end of the current year to have such an organisation in full working order. It would appear from the Board's returns that in 1878 67½ per cent. of the children vaccinated in England were vaccinated at the public cost, while in about 32½ per cent. the operation was performed by private practitioners.

The question of the quality of the metropolitan water-supply is drifting, in the hands of the Local Government Board, into a position little short of absurdity. The Board reproduces the statement of the Board's chemical adviser on the subject, Professor FRANKLAND, that "the water both of the Thames and Lea is becoming year by year less suitable for domestic use." On the other hand, the chemical advisers of the Water Companies, Messrs. CROOKES, ODLING, and MEYMOTT TIDY, on much more extensive data than those furnished by Professor FRANKLAND, report the waters derived from the Thames and the Lea, as delivered to the consumers, as absolutely impeccable for domestic use. It should be obvious that chemical data will not suffice to settle the question of the fitness or otherwise of the use of a water for domestic purposes, and that we require information of a very different class before we can express a reasonable conclusion on this subject. Surely this is a question that we may reasonably look to the Local Government Board and the Medical Department of that Board to assist a bewildered metropolitan population in solving, and not to add to its bewilderment, in the successive reports of the Water Examiner.

Annotations.

"Ne quid nimis."

THE PROPOSED INTERNATIONAL PHARMACOPŒIA.

THE proposition discussed at the recent meetings in London of the International Medical and Pharmaceutical Congresses, for the production of an International Pharmacopœia, is a modification of a design formed many years ago to have one universal Pharmacopœia for all nations. The desirability of effecting such an object, if possible, was readily assented to by those acquainted with the dangerous discrepancies existing in the strength and composition of medicines bearing the same names as ordered in the Pharmacopœias of different nations. Such differences formerly existed between the three Pharmacopœias used in this country, and it formed one of the strongest reasons for superseding those works by the British Pharmacopœia. A similar result subsequently occurred in Germany, where the numerous and often discrepant Pharmacopœias of the several states of the German Confederation were replaced by the Pharmacopœia Germanica, which now has sole authority throughout the empire. At the first International Pharmaceutical Congress, held in Brunswick in 1865, the subject of a universal Pharmacopœia was broached, and its consideration has been renewed at each of the four congresses subsequently held in Paris, Vienna, St. Petersburg, and London. The idea was taken up by Professor Phoëbus of Giessen in 1869, and the printing of a universal Pharmacopœia was commenced about that time by an association called the "Pharmaceonomic Society," of which Dr. Thudichum was a prominent member in this country. But as the proposition has been more fully discussed, and attempts have been made to realise it, the difficulties of the undertaking have become more apparent, and most practical men have arrived at the conclusion that the production of a universal Pharmacopœia which all medical and pharmaceutical authorities should accept and agree to is impracticable at the present time, and could only be attained, if at all, by very slow degrees. As the urgency of the object chiefly applies to the most potent medicines, such as hydrocyanic acid, laudanum, Dover's powder, preparations of aconite, and other medicines, of which variations in the doses might be productive of serious consequences, and as all must admit the great importance of equalising the strength of these, although they may doubt the necessity for change in some other instances, it was decided at the recent meetings in London, both of the Medical and Pharmaceutical Congresses, that the attempt at equalisation should for the present be confined to potent drugs and their preparations. It was even considered undesirable, in the first instance, to attempt effecting the change with reference to these in the official Pharmacopœias, and

the resolutions adopted were to the effect that a Committee or Commission, consisting of delegates representing various nations, should prepare within the shortest possible time a compilation in which the strength of all potent drugs and their preparations, as ordered in different Pharmacopœias, should be equalised. This compilation, when ready, will, according to a resolution of the Pharmaceutical Congress, be handed over by the delegates to their respective governments or their Pharmacopœia committees. The term "International Pharmacopœia," as distinguished from Universal Pharmacopœia, has been used, in the recent discussion of the subject, to designate the compilation which the delegates are commissioned to prepare; but the work as thus produced, being unofficial, and only intended to contain a limited number of articles, seems scarcely to deserve the title which has been prospectively applied to it. It remains to be seen how far the delegates, both medical and pharmaceutical, representing the several countries in which there are official Pharmacopœias, can agree in recommending uniform standards of strength and composition for the most important and powerful medicines. To the extent to which this can be done an important step will be taken towards the accomplishment of the proposed object, for a concurrence of opinion expressed by an international commission consisting of two medical and two pharmaceutical delegates from each country cannot fail to exert considerable influence with those to whom the duty of preparing the several national Pharmacopœias may be entrusted. The delegates for this country are Professors Fraser and Lauder Brunton, appointed by the International Medical Congress, and Professor Redwood and Mr. Peter Squire, appointed by the International Pharmaceutical Congress.

CANON LIDDON ON THE WORK OF THE PHYSICIAN.

THOSE who had not the privilege of hearing the eloquent sermon of Canon Liddon preached before the International Medical Congress will do well to read it in the pages of the *Church of England Pulpit and Ecclesiastical Review* for Aug. 20th. The allusions to the many points of contact between science and revealed religion ought to warn those who, from imperfect study of one or both, have rushed to the conclusion that they are and must ever be in dire opposition. A comparison between the work of a physician and the work of our Saviour when on earth has become a pulpit commonplace, and in its coarser outlines cannot fail to arrest the attention of even the most careless. But rarely, if ever before, has there come from any pulpit a higher or more discriminating, yet cordial recognition of the nobility of our profession as the practical embodiment of our Lord's teaching than is to be found in this sermon of Canon Liddon's. We should, therefore, listen to his words of caution with especial respect. "Too often, when science knows that death is inevitable, the dying man is allowed to cherish hopes of life. ..... It is not for this that your higher knowledge is given you." The temptation to evade the truth when it would be distressing or alarming is perhaps the strongest that meets the physician in his daily practice, and frequent is the attempt to justify the means by the end. But the disastrous results to all concerned are not less apparent from this form of deception than from any other. To tell the truth at all times no doubt requires moral courage, and the immediate result of the concealment of the truth is sometimes so pleasant that we fear the professional conscience is hardly so sensitive on this subject as it ought to be. Dr. Liddon's caution may not, therefore, be unnecessary. It is less easy to seize the preacher's meaning when he asks "if pathological experiments are justified, if at all, only by some recognised philanthropic aim, as distinguished from the general instinct of scientific curiosity," as the question is so general. As has been shown so abundantly during the last few weeks, the ultimate effect of experiments, which many would regard as prompted by "scientific curiosity," is often the greatest practical benefit to the human race, and as the general effect of all pathological experiments has hitherto been improvement in the prevention or cure of disease, we may fairly claim that such will be the result in the future. For what Dr. Liddon says so eloquently about the physician as a teacher, a healer, a prophet, a teacher of reverence and of benevolence, we must refer to the sermon itself, which will well repay perusal.

PRESIDENT GARFIELD.

AT the close of last week it was possible to entertain but faint hope concerning President Garfield. His strength steadily declined, his pulse became more rapid, breathing quicker, delirium more marked, and death appeared very imminent. But on Saturday evening and Sunday a change occurred, and since then we have heard only of steady improvement. A second small abscess in the parotid gland has been opened, and the swelling of the organ is stated to be subsiding satisfactorily. The progress of the wound in the back is also good, but we do not think healing will be promoted by probings to learn how far granulation has proceeded. Such investigation is uncalled for, and likely only to do harm. The most favourable signs, however, are the fall of temperature to the normal, and especially the lessened frequency of the pulse, which on Wednesday last was below 100 for the first time for some weeks. This is a thoroughly safe criterion of increased strength and of the subsidence of the blood-poisoning, and, together with the improved power of digestion, the ability to sleep soundly, and mental clearness and cheerfulness, affords solid grounds for hope that after all President Garfield may recover. The case is a striking illustration of the power of a good constitution to hold up against illness that would certainly have proved fatal to one with feebler powers of resistance. This constitutional vigour may be difficult to exactly appreciate or estimate, but it is none the less a factor of the highest consequence in severe illness. The President still remains in a critical condition; another failure in his digestive powers might at any time turn the balance against him, as might also a recurrence of the symptoms of blood-poisoning. These dangers cannot be entirely removed in a few days, and what we have hitherto insisted upon so often we are bound to state again, that Mr. Garfield will not be out of danger until his wound has healed.

POST-MORTEMS FOR INQUEST PURPOSES.

EVEN the lay papers recognise the peril of leaving the notification of the coroner's "order" for a post-mortem examination to the convenience of a subordinate officer and the chances of postal delivery. It is obvious that if the order is not received—as happened in a recent case—until sufficient time has elapsed between the death and the examination for the advance of decomposition, the condition of a body must be so affected that many of the most important tokens of the cause of death may be no longer perceptible. Nearly all traces of vegetable poisons are very quickly lost. One of our contemporaries, commenting, fairly enough on the whole, upon the facts of a case in which a medical officer complained that he was not able to examine a body in consequence of the order being delayed until decomposition had occurred, alleged that no "order" was required until medical men abused the permission to make an examination when they deemed it necessary. The *Echo* says, "cases were continually occurring where the doctor in attendance had insisted upon holding a post-mortem when there was no necessity whatever for this painful proceeding, and it was properly decided that he should be allowed to act only

under a warrant." This is a seemingly grave imputation, and we take leave to affirm that it was not warranted by facts. Medical men are not prone to make post-mortem examinations without good and sufficient reason. It is quite possible that a non-medical coroner may not have perceived the need of such an investigation to discover the basis for a medical opinion; but that circumstance cannot affect the facts. It would be far better—in the interests of public safety, justice, and the accuracy of the conclusions at which coroners' courts and juries arrive—if the practice of searching for the actual cause of death were more general. Good and shrewd guesses may sometimes be made in the absence of precise information; but little, if anything, more than a guess can be obtained from a medical man who has not seen the deceased person before death, and is not permitted to examine the body; and "opinions" based on conjectures, however astute, are apt to be seriously misleading when they are not simply valueless. No reproach attaches to the medical profession for making unnecessary examinations, but we are not satisfied that no blame rests on medical men who give opinions as to the "cause of death" without having at command the means of forming a judgment.

THE DEVELOPMENT OF THE RETINA.

THE investigations of Löwe apparently showed that the retina of mammalian animals is developed in a manner diametrically opposite to that of birds and batrachian reptiles. This remarkable conclusion, exceptional as it is to the general laws of development, has led to an extended investigation of the subject by Ogneff of Moscow, who has arrived at the opinion that the appearances seen by Löwe are for the most part the result of his method of treatment, which is ill-suited to so delicate a structure as the embryonal retina. Löwe distinguished in the earliest stage of development four layers—(1) the external limiting membrane; (2) a layer of clear elements, not everywhere continuous; (3) a layer of small, round, dark, radiating bodies; (4) a clear homogeneous mass, in which here and there indications of a radiating striation could be perceived. But Ogneff finds at this period only spindle-shaped cells, with oval nuclei and a fine ring of protoplasm, from each extremity of which processes extend. Here and there on the outer surface were large clear cells with roundish nuclei. No special limiting membranes could be perceived. The first visible change consists in a division of the innermost cells, which also become large and round, with more conspicuous nuclei and more numerous processes, of which the inner curve round and run parallel with the inner surface of the retina. These are, without doubt, the earliest appearance of the nerve fibres. The processes of the outer layer of cells can be clearly traced through the whole thickness of the retina, and some of these processes are thickened at the extremity—the embryonal form of Müller's fibres, which Löwe states do not appear until a much later period. The clear elements on the outer surface described by him could not be discovered by Ogneff at this period. The further changes in the retina consist in this, that between the embryonal nerve fibres and the spindle cells lying immediately outside them appears a narrow streak, the indication of the molecular layer. It is interrupted in places by the two cellular layers. From what the substance of this layer is developed Ogneff could not discern, but it appears to consist of numerous nerve-cell processes and the embryonal Müller's fibres and other fibres which run vertically, these fibrillary elements being accompanied by extremely fine granules, easily separated by maceration in water. It does not at this period appear to contain a special spongy substance. Subsequently these layers, and especially the molecular and nerve-cell layers, undergo further development. They become more sharply limited, and increase in thickness. In the former free nuclei become visible, and also roundish cells, which are irregularly scattered in the mammalia, but arranged in series in pigeons. The differentiation of the retina terminates with the appearance of the rods and with the two granular layers. The rods are not formed, as Löwe asserts, beneath the external limiting membrane, but appear opposite the processes of the cells which lie on the outer part of the retina. The separation of the two granular layers commences just before the appearance of the rods; the cells in the outer part of the retina divide and become much smaller, but those lying most deeply are rather larger than the others, and roundish. From this description it appears that the process of development of the mammalian retina occurs in the same manner as in birds and batrachia.

THE FULHAM SMALL-POX HOSPITAL.

THE report of the Medical Superintendent of the Fulham Small-pox Hospital (Dr. Sweeting) for the year 1880 shows that at the end of 1879 there were 22 patients in hospital, of whom 20 were suffering from small-pox. During 1880 315 patients were admitted, the discharges numbering 237 and the deaths 48, 52 remaining under treatment at the close of the year, of whom 37 were convalescents and 15 acute uncomplicated cases. Of the admissions, 55 were convalescents from other hospitals and 260 acute cases, and of the latter 252 were undoubted cases of small-pox and 8 were other diseases. Three of the patients admitted suffering from small-pox had walked to the hospital. The greatest number of patients from any one parish came from Islington, and Fulham sent more doubtfully vaccinated cases than any other parish. Only 10 of the patients presented good vaccination marks on admission, not one of whom died; while the mortality of the vaccinated was at the rate of 11·72 per cent., of the doubtfully vaccinated 26·66 per cent., and of the unvaccinated 40·32 per cent. Dr. Sweeting gives sundry notes on the patients admitted from Kensington, Fulham, and Chelsea, which do not help us much with reference to the asserted influence of the hospital in determining a prevalence of small-pox in its vicinity; and with reference to an allegation that the boasted immunity of nurses in small-pox hospitals was due to the fact that they had been selected from former patients, and not to the effect of revaccination, he states none of the nurses in the Fulham hospital since it had been opened had been chosen from patients, and that out of 116 nurses 14 only had suffered from small-pox before they entered the service of the hospital. The unsatisfactory existing mode of the ambulance-carriage service forms a subject of comment.

HURRIED DINNERS.

IT is a mistake to eat quickly. Mastication performed in haste must be imperfect even with the best of teeth, and due admixture of the salivary secretion with the food cannot take place. When a crude mass of inadequately crushed muscular fibre, or undivided solid material of any description, is thrown into the stomach, it acts as a mechanical irritant, and sets up a condition in the mucous membrane lining that organ which greatly impedes, if it does not altogether prevent, the process of digestion. When the practice of eating quickly and filling the stomach with unprepared food is habitual, the digestive organ is rendered incapable of performing its proper functions. Either a much larger quantity of food than would be necessary under natural conditions is required, or the system suffers from lack of nourishment. Those animals which were intended to feed hurriedly were either gifted with the power of rumination or provided with gizzards. Man is not so furnished, and it is fair to assume that he was intended to eat slowly. We must apologise for reminding our readers of facts so familar; but we do this in the hope that any who may

chance to have influence with the managers of large hotels where dinners *à la table d'hôte* are in vogue will take measures to bring about a much-needed reform in the manner in which these entertainments are conducted. At the best and most frequented establishments in places of fashionable resort, where at this season multitudes of health-seekers are wont to congregate, the hurried dinners are not only causes of annoyance, but actually go far to prevent the benefit which should be derived from a change. No sooner is one course served than another is introduced, without giving the guest time to digest or even to swallow the first. The eagerness to secure good dividends takes a particularly mischievous form when it piles food on the plate of a customer, and compels him to consume it breathlessly. The matter may seem a small one, but it is not so. Just as a man may go on for years with defective teeth, imperfectly masticating his food, and wondering why he suffers from indigestion, so a man may habitually live under an infliction of hurried dinners, and endure the consequent loss of health, without knowing why he is not well, or how easily the cause of his illness might be remedied.

CASUALTY DEPARTMENTS OF HOSPITALS.

THE series of recent inquests into the facts of cases treated in the casualty or out-patient department of our hospitals supplies material for the serious consideration of the authorities of those institutions, and ought to be turned to practical account. Few things are more striking than the public faith in our hospitals. It is believed that a patient admitted into one of them is placed at a great advantage, that he is almost more favourably situated than a private patient, who can command a multiplicity of the best opinions. The nurses about him are experienced; an intelligent house-surgeon or house-physician is at hand day and night; above all, he is under the care of an eminent member of the profession, who, in a case of doubt or difficulty, can summon to his aid colleagues in any number and of equal eminence. These are great advantages, which are so extensively recognised that well-to-do people are wont to say that in case of an accident or an illness befalling them they would not object to be taken into a hospital. A good many facts, amongst them those elicited at several recent inquests, go to show that in what we may call the casualty departments of the hospital there is not the same guarantee of skill and care which there is in the wards. Very serious facts may go unrecognised, very grave injuries be unsuspected. A man may be kept going backwards and forwards with three or four ribs broken, with a lung lacerated, with two or three ruptures of brain substance, with a fractured skull, with sores generating pyæmia. We shall not recapitulate details, which have lately had publicity enough in the daily press. Our object is rather to extract the lessons from them, and to turn them to such account that the work done in the casualty department shall command as much respect as that done in the out-patient department, commonly so-called, or in the wards. It is, of course, important to remember this distinction between the casualty department, where accidents and other cases are seen by dressers and house-surgeons, and the ordinary out-patient department, where persons are usually seen by the junior members of the medical and surgical staff. The first thing necessary is to realise that out-patient practice is not made up of trivialities. It is unquestionable that the number of cases to be seen is such as to preclude any serious attention to individual cases by the house-surgeon. Even at Guy's the house-surgeon is supposed to see, in what is called the surgery, 200 cases a day. It is for the authorities to say how this great question has to be dealt with. It cannot be indefinitely postponed, for in four or five weeks as many of the principal hospitals have appeared to public disadvantage. If paid officers cannot be greatly multiplied, the honorary staff of our hospitals must be increased. We are persuaded that much more good is to be derived from the casualty department, both by students and patients, and much more good is to be done in it, than is possible under existing arrangements.

ANOTHER DEATH UNDER ETHER.

WE regret to have to notice another death under the influence of ether. Arthur Staines, a miller of Rotherhithe, aged forty-eight, and a patient at Guy's Hospital, was placed under ether, on August 27th, for the purpose of a surgical operation consequent upon the deceased having run the point of a rusty bill-file into the middle finger of the right hand. From the evidence given at the inquest by Mr. Bernard Scott, the house-surgeon who was in attendance, it transpired that the patient had once suffered from rheumatic fever; but this occurred so long ago, and the sounds of the heart were so clear that no danger was apprehended from that circumstance. The ether was being administered, but before the patient was fully under its influence he suddenly ceased to breathe. Artificial respiration was used to restore animation, but without avail. The jury returned a verdict that death was due to syncope. On the evidence which lies before us, we ourselves see no ground whatever for a verdict of death by syncope. It is very doubtful, indeed, whether under ether syncope can occur at all, except when there is severe loss of blood, and in this case the operation was not commenced when the fatal attack supervened. It was also noticed that the breathing suddenly stopped, which is ordinarily the first step towards death under ether, the heart continuing to act for one or two minutes afterwards. It would, we think, be more correct to say that the death commenced at the lungs, and was from asphyxia. The man was a miller by trade, and men of this occupation rarely escape the effects of dust, while they commonly have some portion of lung emphysematous, in which condition they are very easily affected by such an agent as ether, taken in the form of vapour into the lung. The case affords another proof of the correctness of our argument last week for the selection of anæsthetics for particular cases. In this instance would not local anæsthesia have answered every purpose?

THE BURIAL OF STILLBORN INFANTS.

CLAUSE 18 of the Births and Deaths Registration Act of 1874 was intended to check, if not to prevent, the growing and dangerous practice of burying deceased infants as stillborn. The clause, however, although an advance in the right direction, is to a great extent inoperative, because no means are provided for securing the strict observance of the provisions of the clause by the authorities of burial-grounds. The Act provides that the body of no stillborn child shall be buried in any burial-ground without the production of a "written certificate that such child was not born alive," signed by a registered medical practitioner who was in attendance at the birth, or who had examined the body of such child. Failing such certificate, one should be produced signed by some person who, if the child had been born alive, would have been qualified to act as informant concerning the birth, and must certify not only that the child was not born alive, but that no registered medical practitioner was present at the birth, or that his certificate cannot be obtained. Greater security for the due observance of these necessary regulations for the burial of infants said to be stillborn is urgently called for. It is constantly patent that the burial of deceased infants as stillborn, if checked, is by no means prevented, and that the authorities of burial-grounds by their laxity in carrying out the provisions of the Act afford dangerous facilities for the concealment of crime or negligence, and for a practice which threatens to impair the

value of our birth and death registration statistics, for if a liveborn infant be buried as stillborn, neither its birth nor its death is registered. An inquest was recently held in Birmingham on the body of an infant which had been sent for burial as still-born to the sextoness of All Saints Church, on the authority of a certificate signed by a midwife who not only certified the child as stillborn, but that she was present at the birth, both of which were false. It was given in evidence that the sextoness, an illiterate woman, had continually buried children described as stillborn on the certificates of midwives, and that she kept no list of such burials. A midwife, if present at the birth, is unfortunately qualified, under the clause before mentioned, to give a certificate for the burial of a stillborn child, if the certificate of a registered practitioner cannot be obtained; but it does not seem generally known that a midwife in giving such a false certificate renders herself liable, on conviction on indictment, to imprisonment with or without hard labour for a term not exceeding two years, or to penal servitude for a term not exceeding seven years. The jury in their verdict in this Birmingham inquest very properly called the attention of the vicar and churchwardens of All Saints parish to the dangerous laxity of its burial arrangements, and at the same time strongly censured the midwife. If, however, the provisions of the Births and Deaths Registration Acts in this matter are not to become a dead letter, prosecutions must be instituted in those cases in which false certificates are proved to have been deliberately given for the purpose of evading the Act. Above all is it important that a register of stillborn infants be kept at every burial-ground, which should be at all reasonable times open to the inspection of the local registrar of births and deaths, and also of the coroner and his officer. A grave responsibility rests on the authorities of burial-grounds in this matter, and it is clearly their duty, in order to lighten this responsibility, to see that such a register is duly kept and that it is open to inspection.

INOCULATION OF MONKEYS WITH TUBERCLE.

SOME interesting experiments have been performed by MM. Krishaber and Dieulafoy on the artificial production of tubercle in monkeys. Observations on these animals have a special interest on account of their susceptibility to the disease, and on account of their position, in relation to man, in the animal kingdom. Monkeys are commonly believed to be extremely liable to tubercle; it has even been asserted that all monkeys in confinement die, sooner or later, of this malady. If so, they would be hardly fit subjects for experiment. MM. Krishaber and Dieulafoy have, however, ascertained that this is not correct. They have obtained information on this point from the directors of all the principal zoological gardens in Europe. It would seem that about 22 per cent. die tuberculous, which is nearly the same as the percentage of deaths from the disease in man. Sixteen monkeys were subjected to inoculation, and twenty-four others were kept under the same conditions for the purpose of comparison. Those experimented on were divided into four groups, and each group was inoculated with a different pathological product: grey granulations, pulmonary tissue infiltrated with grey tubercle, and caseous substance. Of the three monkeys constituting the first group, one died with cheesy glands, the other two survived, and one of them resisted two other inoculations. The thirteen other monkeys were divided into three groups, and, with the exception of two which perished accidentally soon after the inoculation, all died from tuberculosis after an interval which varied from 34 to 218 days. The most rapid cases were those of the monkeys inoculated with grey granulations. Of four animals inoculated together, three died after the same interval. If the two monkeys which died from an accident are left out of calculation, 86 per cent. of those which were inoculated died tuberculous, while of the thirty-four other monkeys kept for the same time under the same conditions, the deaths from this cause were only five, or 2·1 per cent. The conclusions drawn from these investigations are: (1) That human tubercle, when inoculated, kills a monkey in nine out of ten cases, with lesions analogous to those met with in man. (2) The effect of the inoculation varies according to the substance employed; the grey granulation is most, and the pulmonary parenchyma least, infectious. (3) Two monkeys only were found to be insusceptible.

THE DARENTH SCHOOLS AND ASYLUM FOR IMBECILES.

THE Committee of the Darenth Schools and Asylum for Imbeciles have issued their sixth annual report, including the reports of the Medical Superintendent (Dr. Fletcher Beach) of the schools and other officials. The schools at the time of the report contained 244 children, classified as follows: 108 epileptics, 40 epileptic and helpless, 55 helpless, and 41 young children. "The building," Dr. Beach observes, "I regret to say, is becoming more and more a receptacle for the care of helpless and epileptic imbecile children, and is losing in the same degree the character of a training school. Of those classed above as epileptics a number are incapable of improvement. I am afraid if these cases continue to be sent in such large numbers, there will, in course of time, be few left to profit by the instruction which is given here." The report throws much light upon the internal administration of the school, and in this respect the included report of the late schoolmistress, Mrs. Mary Jane Stephens, is of much interest. The Commissioners in Lunacy have expressed themselves favourably of the schools and asylum, but the strain to which the medical superintendent (Dr. Beach) is exposed in the discharge of his duties cannot, they think, be maintained much longer without danger to his health.

CHANGE WITHOUT RELIEF.

No great benefit can be reasonably expected from a change which does not involve complete or very considerable *relief*. Busy men go away with cares on their minds and wonder they are not the better for their holiday. They do not perceive that they fail to release the mind from its tension. Unless a man can leave his troubles at home it is little use for him to go abroad. What generally happens is an augmentation of anxiety. There is the feeling that something has been left undone before setting out, or a harassing misgiving that all will not go well during his absence. Feelings like these will spoil the best holiday, and deprive it of its power to replenish the exhausted stock of energy. Another mistake made is to preserve close communication with a place of business during the period of nominal relaxation. If letters and business papers are passing between the absentee and the scene of his accustomed labour, it is impossible that his mental faculties can enjoy that perfect relief which is essential to their recuperation. Better, if need be, shorten the time of absence, so that it may be complete while it lasts. The body is so closely associated with, or so entirely pervaded by, the mind, and so immediately under its influence through the nervous system, that even physical improvement is impossible, except to the least emotional and most stolid of temperaments, unless the change obtained during a holiday tour involves and includes perfect relief from mental tension. To secure this relief should be one of the objects kept principally in view by the working members of a population which labours chiefly with its brains.

THE BACK SLUMS OF BRIGHTON.

IF the sanitary authorities of the best and most accessible of seaside resorts near London desire to maintain the deservedly high reputation of their town as a place of residence for health-seekers, they must take prompt measures to improve the condition of its back slums. It is a notorious fact that the narrow streets and courts of Brighton are gradually being neglected in a way which threatens to discredit the locality. While ample funds are lavished on the principal thoroughfares, and great efforts made to improve what meets the eyes of visitors, the hidden places are grossly neglected. From these unsuspected hoards of dirt and nests of disease come the stenches which rise from the drains in King's-road in the early morning, and which cause frequent complaints, whilst they do a mischief to health the true source of which is not even suspected. It should be sufficient to call attention to this matter before "the season" commences in Brighton. There is yet time to prosecute a sanitary investigation extending to the back slums, and some precautions may instantly be taken to prevent the spread of disease. Before another season comes round there should be an extensive clearance. It would be a scandal if London-super-Mare, with all its fashionable improvements, extensions, and embellishments, were shown to be nothing better than a whited sepulchre—fair without, but within full of the tokens of neglect, misery, and disease.

INDIAN MEDICAL SERVICE.

IN a telegram from Calcutta it is stated that the Indian Government has sent home a scheme for the entire reorganisation of the Medical Service. If the sketch given by telegram be correct, it appears to involve an amalgamation of the British and Indian medical departments, and a separation of the civil from the military branch, the latter furnishing the candidates for civil employment. The details are, however, too meagre to enable us to form any correct judgment of the scheme. It is believed that it will effect a considerable reduction in the expense of the service. We are disposed to think that the principle on which the reorganisation is intended to be effected, if carried out honestly and with due consideration for existing interests, will prove beneficial to the public service; but we reserve our opinion as to the manner in which this is to be done till we are in possession of the details of the scheme.

THE ROYAL COLLEGE OF SURGEONS AND PRELIMINARY EXAMINATIONS.

IT is stated that as many as 630 candidates have entered their names for the examinations in Arts, &c., for the diplomas of Fellow and Member of the College, a much larger number than has been known since the establishment of the preliminary examinations. The diminution in the annual revenue of the College by the cessation of these examinations may be judged by the fact that, although the fee is only £2, the above number represents the sum of £1300 for one of the two examinations held in the year.

THE LEPER ASYLUM, MAHAICA.

DR. DUNSCOMBE HONIBALL'S report for the year 1880, as acting medical officer of the Leper Asylum, Mahaica, British Guiana, shows that the average number of inmates was 129·3, and that 64 patients had been admitted during the year, of whom 2 absconded before any particulars had been obtained concerning them. Of the 62 new cases which actually came under care, 32 were suffering from anæsthetic leprosy, 21 from tubercular, and 9 from the mixed form. The dwellings have been kept in a neat and cleanly state, and the meals have been removed from the dormitories to the recreation sheds, to the great advantage of the patients. The dry-earth system of excrement-disposal is carried out with excellent effect in fostering cleanliness and avoiding nuisance, and generally the condition of the asylum was maintained in a satisfactory state, and the occupations and amusements of the inmates duly considered. The mortality of the patients in 1880 was at the rate of 14·65 per cent., calculated on a total strength of 205. Dr. Dunscombe Honiball (who, however, had only six months' personal experience of the drug) has failed to notice any favourable effects from the administration of Gurjun oil; and his inquiries as to the results of its use by patients in the asylum have not satisfied him that the benefits thought to have been observed by others are confirmed by the experience of the Mahaica Asylum.

PROF. ANNANDALE ON HOMŒOPATHY, ETC.

AT the recent medical graduation in Edinburgh, Professor Annandale delivered the valedictory address to the 173 new graduates, not ten of whom he expected to remain north of the Tweed. He chose for his address the subject of Quackery, which, he said, was to be found in other professions besides that of medicine. He took a large and liberal view of the question, and expressed the perfect right of the public to please itself, and of patients to please themselves, by changing their medical adviser, or by having a bone-setter, rubber, or mesmerist. On the subject of homœopathy, not being in the Council of the British Medical Association, he seems still to be somewhat old-fashioned, though slightly at a loss to know what homœopathy now means. We must make room for what appears to us sound sense and good ethics on this question in its present stage. The Professor said:—

"My difficulty in regard to homœopathy is that, judging from the recent correspondence and discussions on the subject, the majority of homœopathic practitioners no longer acknowledge or practise in their entirety the principles of the original founder of the system. I understand that they now make use of homœopathy, allopathy, or any other treatment which they consider likely to be useful—I might in some, I hope not in many, instances, say agreeable—to their patients. Why, then, call themselves homœopaths? and why do they let it be understood that their treatment is a special one, or is in any way superior to that practised by the ordinary practitioner? The position of homœopathic practitioners is at present both illogical and inconsistent as regards the practice of medicine; and I say that they should either hold to the original principle of homœopathy and call themselves true homœopathic practitioners, or they should retire from the ranks of homœopathy, return to the field of the ordinary profession, and give up their pretensions to cure all diseases by any special system which is peculiar to themselves. ..... Perhaps the best advice I can give you in regard to the treatment of homœopathy is to treat it as most sensible people treat æsthetics. I have no desire to say anything that is discourteous or personal in regard to homœopathic practitioners themselves. Many of them are educated gentlemen, and are qualified members of our profession; but it is impossible, under present circumstances, that you can have any true sympathy with them in the matter of medical practice. You cannot meet them in consultation, because, although you might agree with them as to the nature or diagnosis of a case of disease, one or other of you must consent to sacrifice your principles and belief when the treatment of the disease has to be decided, and no man with any proper feeling will do this, or should do it, more particularly when the health or life of a human being is concerned."

Mr. Annandale wound up with a few pieces of advice to the young graduates, which we heartily endorse. First, not to think that they were fully equipped with all knowledge, but to go on learning the practical parts of their profession. Secondly, not to consider that they had any vested interest in their patients. Thirdly, while willing in proper circumstances of poverty, misfortune, &c., to give their services,

they must, as a rule, expect and require from their patients proper monetary remuneration. Fourthly, never to object to consultations with their professional brethren if their patients desire it. Fifthly, not to enter too actively into the region of politics, general, local, or theological.

THE QUEEN'S COLLEGES AND THE IRISH UNIVERSITY.

THE facts we published last week from the report of the President of Queen's College, Galway, and similar facts in reference to the Colleges of Belfast and Cork, in addition to others to which we have on former occasions adverted, make it extremely desirable that the Irish University Act of 1879 may be so used and worked as not to discourage or diminish the valuable influence of the Queen's Colleges. The Act of 1879 provides a mere examining university; but in the Queen's Colleges very important educational work is carried on, to the satisfaction alike of Catholics and Protestants.

THE LATE SURGEON-GENERAL T. BEST, A.M.D.

WE regret to announce that the body of Surgeon-General Best, H.P., Army Medical Department, was found in the river Thames on Sunday last near Chiswick, by a waterman of the name of Lewis. It is understood that the deceased officer had been much disturbed in mind of late. He resided at 6, Great Western-terrace, Westbourne-park, and had been missing from home since the 24th inst. The body has been identified by his relatives, and will await a coroner's inquest before being interred. Dr. Best was an old and distinguished medical officer, and held the office of Surgeon-General of the Southern District at Portsmouth prior to his retiring from the service.

YELLOW FEVER AT BARBADOES.

WE are sorry to find from the accounts received from the West Indies by the mail on Friday last that the epidemic of yellow fever at Barbadoes not only continued, but showed signs of increasing virulence. During the week the Commanding Royal Engineer, Col. Fraser, the wife of the Governor, an officer of the Commissariat Department, and several soldiers of the Lancashire Regiment and Royal Artillery, had fallen victims to the terrible scourge. No intelligence has been received up to date of any extension of the disease to the other islands of the West Indian group.

SIR JOHN LUBBOCK'S presidential address at the jubilee meeting of the British Association at York on Wednesday, consisted for the most part of a review of the progress of science in its various branches during the last fifty years. Considerable prominence was given by the President to the researches of Pasteur, Burdon-Sanderson, Koch, Greenfield, and others in their bearing on the control of contagious disease.

THE newly-elected French Chamber of Deputies will be early called upon to consider an important Bill affecting druggists, which, after long deliberation, has finally been drafted by the Council of State. It enacts that in future no druggist shall be allowed to combine with his profession that of a doctor, or to sell or advertise any patent medicines or nostrums.

THE Queen has forwarded to the Edinburgh Royal Infirmary a number of proof engravings to be used as aids to the adornment of the new building. The prints consist of portraits of Her Majesty, the late Prince Consort, and other members of the Royal Family.

A MEETING of the standing committee of the Royal University of Ireland was held last Tuesday, when the revision of the scheme rendered necessary by the recent Act of Parliament was under consideration. The committee have recommended that the matriculation examination shall be held this year on Tuesday, December 6th, and following days, and that candidates shall be required to send in their names to the secretaries on or before October 15th, suggestions which most probably will be adopted by the Senate.

THE operation of opening the œsophagus will be performed at the London Hospital at two o'clock on Tuesday next. The patient is a woman aged thirty-three, suffering from stricture at the junction of the pharynx with the œsophagus. Not only has she wasted considerably, but attempts at deglutition on the passage of bougies produce severe dyspnœa, which on one or two occasions has been of extreme gravity.

THE death is announced of Surgeon-Major Edward McCrystal, Army Medical Department, from disease of the heart, at Devonport. Dr. McCrystal entered the army in September, 1866, and attained the rank of Surgeon-Major in 1878.

INTELLIGENCE has been received also of the death in India, at Camp Gundakinduff, of Surgeon Behary Lall Dutt, M.D., H.M. Bombay Medical Service. Dr. Behary Lall Dutt was a native of the Bombay Presidency, and obtained his commission in 1876.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL INSPECTORS OF THE LOCAL GOVERNMENT BOARD.

Bridlington.—The Local Government Board have recently issued the report of an inquiry made by its inspector, Dr. Parsons, on the recent prevalence of enteric fever in the Bridlington Urban Sanitary District. This district not only includes the old town of Bridlington (from which it takes its name), but also the well-known and fashionable seaside resort of Bridlington Quay. The Quay, however, forms a separate collection of houses on the coast, about a mile distant from the old town; and it may be said at the outset that this official inquiry concerned the old town rather than the Quay, and that the results exhibit Bridlington as the seaside resort in a very favourable light as compared with Bridlington as the inland country town. Hitherto it has been the practice of the medical officer of health in his reports to give separate statistics of the old town and of the Quay, thus giving prominence to the more favourable health position in which the inhabitants of the Quay are placed as compared with the town; but, strange to say, the Sanitary Authority have, according to Dr. Parsons, adopted the suicidal policy of directing their medical officer of health to discontinue his reporting on the two places separately, on the ground that "it was invidious to Bridlington old town, which had the higher death-rate." Thus the repute of the Quay as a health-resort is to be discredited by the local authority lest the credit of the old town, which concerns only its own inhabitants, should suffer. The old town appears to suffer from defects of sewerage and refuse and filth removal, which do not exist at the Quay, and which would lead the observer to infer that enteric fever would not be a rare visitor. But in the autumn of 1880 a considerable outburst of enteric fever occurred in the old town; and it was in view of this outburst that Dr. Parsons was seemingly instructed to make his inquiry. Dr. Parsons concurs with the medical officer of health (Mr. Allison) that the sudden and widespread character which marked the outbreak of enteric fever in the autumn was due to the pollution of a particular milk-supply. The possi-

bility of such pollution early presented itself to the mind of Dr. Hutchinson, the Chairman of the Local Board of Health; and on inquiry made by Mr. Allison it was presently found that the greater number of cases had happened in houses supplied from a particular dairy, and under circumstances which seemed to exclude any other source of origin. It was further found that the water used for dairy purposes in the suspected dairy was polluted, and that there was a possibility of its having been contaminated by the specific typhoid infection. Moreover, the outbreak speedily declined after measures had been taken to limit it, based upon this view of its causation. Although Dr. Parsons believes that the main diffusion of fever took place by the agency of infected milk, he also thinks that in many cases unwholesome conditions co-operated in prolonging and intensifying the epidemic "both by way of determining the occurrence of the disease by aggravating the severity of individual attack, and by facilitating its transmission to other members of the household." The fever showed a marked preference for the worst drained parts of the district.

Chorley (*Lancashire*).—This report relates to an inquiry made by Dr. Parsons, under instructions from the Local Government Board, into the prevalence of "fever" in and the general sanitary condition of this urban sanitary district. Chorley has a population of 19,472, the area of the district includes 3613 acres, and its chief industry is the manufacture of cotton. "Fever," presumably enteric, seems to be generally more or less present in the district, but in the course of 1880, and at the beginning of 1881, it appears to have been more prevalent than usual. The inquiry threw no light upon the beginning of this prevalence, but from consideration of all the facts Dr. Parsons observes: "It seems most probable that the morbid poison has been conveyed through the medium of sewer air." Chorley was sewered from designs by Mr. Rawlinson, C.E., about 1855, and pail-closets, after the Rochdale plan, are generally but not universally in use. The defects in the sanitary administration of the place appear to be chiefly insufficient flushing of the sewers, the discharge of heated fluids into them, the want of disconnexion by air-break of house-drains from the sewers, and the absence of hospital provision for infectious cases, and apparatus for disinfection of infected articles of clothing and bedding, &c.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Islington (*Metropolis*).—Dr. Meymott Tidy's report for the parish of St. Mary, Islington, for 1880 is strictly limited to the necessary details, and is, in consequence, deficient in that interest which so usually characterises the reports of this medical officer of health. He estimates the population of Islington in 1880 at 286,358, and reports for the year a birth-rate of 34·3 per 1000 of the inhabitants, and a death-rate of 18·4. The number of deaths from children under one year old, he observes, "is still painfully large, and constitutes between one-third and one-fourth of the total mortality. The proportion is no greater than in other districts; but I confess that to my mind the death-rate of our infant population, generally, is a matter that calls for the serious and anxious consideration both of sanitarians and legislators. Children seem to be born for little else than to be buried." Writing of the water-supply of the district, which is derived from the works of the New River Company, Dr. Tidy remarks, "I can only reiterate what I have said before, and of the truth of which I have no shadow of doubt, that no better, purer, and more wholesome water could possibly be furnished to the people." Whisky would appear to have a peculiarly important place in the dietaries of Islington, for of sixty-four samples of food submitted to Dr. Tidy for analysis by the sanitary authority's inspectors in 1880, twenty-two were samples of whisky, none of which had to be condemned. The events of the recent small-pox epidemic, as they affect Islington, belong to the present year's (1881) report and will appear hereafter, but Dr. Tidy takes occasion to speak of the "enormous gain" to the ratepayers of the parish from the establishment of a camp hospital for small-pox by the vestry.

Birmingham.—Dr. Alfred Hill in his report for the quarter ending July 2nd, returns a birth-rate of 35·8 per 1000 living and a death-rate of 18·25. Birmingham would still seem to retain a large number of wells for domestic use. Dr. Hill gives an analysis of the waters of 122 of these wells in the present report, and observes that, "as usual, nearly all were contaminated with sewage and other impurities, and consequently totally unfit for human consumption."

Gloucestershire Combined Sanitary District.—Dr. Bond's report for 8880 for this extensive district (which includes eight rural sanitary districts and eight urban districts,' has an area of over 390,000 acres, and a population of about 125,000) shows a death-rate of 16·3 per 1000 inhabitants, which may be considered as a normal rate. The records of the causes of death present little for special comment during the year, but it would be impossible for Dr. Bond to write a report which is not suggestive, and the present report contains not a few matters which deserve consideration. In regard to the prevalence of scarlet fever, Dr. Bond is of opinion that in 1879 an end of an eight-yearly period of that disease had been reached, and that (as he expressed himself in his report for that year) "if there is anything that is morally certain, it is that, during the present year, (1880), or at the latest next year, we shall have a re-lighting of the fires of this Moloch of modern civilisation." The tables appended to the present report show that this forecast has been justified, the mortality from scarlet fever during the past year having been nearly double what it was in 1879. With reference to the limitation of the disease, Dr. Bond makes the following observation: "The difficulty of keeping this disease in check is every year increased by the augmenting number of children who are brought into school attendance, and by the facility with which mild cases of the affection are thus enabled to speedily diffuse their infection. The importance of using every effort to control the spread of the disease in this way is a strong argument in favour of combining the appointment of school attendance officer with that of sanitary inspector, as the officer in his latter capacity is thus notified at the earliest moment of the absence of children from school, and can inquire as to its causes and check their return if there are any grounds for suspicion connected with it. In two unions in my district this combination has been effected and the result has been in every way satisfactory." With regard to diphtheria, Dr. Bond indicates some interesting differences observed in the prevalence of the disease in his district, as compared with districts in West Sussex, Worcestershire, and Shropshire. Dr. Kelly, the medical officer of health of the West Sussex combined sanitary district states that in his district diphtheria is so common as to be almost endemic, and that it is most prevalent in those parts of the district the elevation of which is low and the subsoil clayey and damp. "In these respects," says Dr. Bond, "my experience is just the reverse of Dr. Kelly's; so far as it goes, it indicates that the disease is most prevalent in the most elevated parts of my district, in which the soil is very porous and dry. But where I have one case Dr. Kelly appears to have ten to deal with, though the general character of his district, in regard to distribution and habits of population, is much the same as that of mine." Dr. Bond can offer no solution of this puzzling problem. The death-rate from continued fever in Dr. Bond's district, which has fallen steadily from year to year since 1875, when it was 46·5 still continues to decline, and last year was 36·7. In respect to infantile diarrhœa Dr. Bond has the following observations: "The subject of infantile diarrhœa has attracted considerable attention of late amongst sanitarians, and various causes have been suggested to explain its excessive prevalence in certain seasons and localities. Of the existing causes there can be no doubt that the most potent is a high temperature. This is well illustrated by the fact that whilst the mean temperature of September in last year was, as has been stated, more than three degrees above the average, the mean temperature of October was nearly four degrees below the average; and contemporaneously with this fall of temperature the epidemic of diarrhœa ceased. But whilst we must look to a high thermometer as the prime cause of infantile diarrhœa there are others which exercise an important influence in its development. Amongst those may be more particularly mentioned improper feeding, bad drainage, and the existence of filth in and about dwellings. The custom which so largely obtains of feeding young children with artificial foods, which in many cases consist of purely starchy materials, incompatible as it is with the conditions of infantile digestion at ordinary temperatures, becomes doubly dangerous in hot weather, when such matters tend rapidly to ferment, and especially when the feeding appliances in which they are administered are not kept scrupulously clean. I believe that this is a very potent cause of infantile diarrhœa; and when there is added to it the close atmosphere which so often exists in the dwellings of the poor, laden with the results of the decomposition of

animal and vegetable matter, and probably with the emanations from foul drains, cesspools, and other places of deposit for filth of various kinds, can we wonder that the sensitive digestion of the infant is so readily affected, and that those troubles arise in it which, if they do not carry it off at once, lead to emaciation and other attendant disorders by which its fate is sooner or later sealed." Dr. Bond has some remarks on the adoption of the by-laws of the Local Government Board in rural districts which appear to be founded on an interpretation of his own of what a by-law is or should be, not upon the interpretation of the word as accepted by the authority which is now responsible for sanctioning by-laws. Dr. Bond would seem to wish to return to the use of by-laws framed in accordance with the rules which formerly obtained at the Home Office, experience notwithstanding.

Tendring.—Dr. J. W. Cooke of Manningtree, the medical officer for this rural district, sends us the annual reports of his district for 1879 and 1880. This district, as at present constituted, includes an area of 85,327 acres, and had in 1871 a population of 24,797. Clacton-on-Sea, an increasingly popular seaside resort among the inhabitants of the metropolis, is situated within this sanitary district, and it is pleasant to learn that the attention of the local authority and medical officer of health is directed to make the sanitary condition of the place such as befits a favourite seaside resort. Tendring has the sanitary shortcomings usually found in rural districts. Its death-rate in 1880 is stated at 16·37 per 1000 living, but this in view of the remediable insanitary states which exist and which will doubtless be remedied by the sanitary authority with the aid of so active an officer as Dr. Cooke, in progress of time must be regarded as needlessly high. The sickness of the district in 1879 and 1880 does not call for special remark.

THE FULHAM SMALL-POX HOSPITAL.

In the case of Chambers *v.* the Metropolitan Asylums District Board, heard on appeal before Mr. Justice Cave and Mr. Justice Kay, from an order made by Mr. Justice Bowen adjourning till the trial of the action a motion for an injunction to restrain the defendant from using their hospital at Fulham for the reception of small-pox patients, the Court suggested that perhaps the best mode of proceeding would be to make an order upon the application, upon the defendants giving an undertaking not to admit any further patients into the hospital until the trial of the action. Sir Hardinge Giffard, representing the defendants, stated that he could not give this undertaking without first consulting the Local Government Board, but he was prepared to advise the Board to agree to the suggestion of the Court. The case was then held over for three weeks to admit of the Board being consulted.

The Roman Catholic Schools Visiting Committee of the City of London Guardians, in reporting upon a recent visitation of children in schools under their supervision, and with reference to the prevalence of ophthalmia, remarks: "The committee are further of opinion that some kind of shade should be provided for the eyes of these boys (out of the infirmary), inasmuch as the Glengarry bonnet or cap in use affords no protection from the sun or light."

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS

Under the influence of continued low temperature English urban mortality is considerably below the average for the season. During last week 4847 births and 2788 deaths were registered in twenty of the largest English towns. The births were 339 and the deaths no less than 469 below the average weekly numbers during 1880. The annual death-rate in these towns, which had declined from 25·2 to 21·7 per 1000 in the four preceding weeks, further fell last week to 19·1. The lowest rates in these towns last week were 14·6 in Plymouth, 15·1 in Wolverhampton, 15·2 in Sunderland, and 15·9 both in Portsmouth and Bristol. The rates in the other towns ranged upwards to 23·3 in Newcastle-upon-Tyne, 24·1 in Liverpool, and 31·9 in Hull. During the first eight weeks of the current quarter the death-rate in these twenty towns slightly exceeded the average rate in the corresponding periods of the past five years.

The principal zymotic diseases caused 623 deaths in the twenty towns last week, showing a considerable further decline from recent weekly numbers; they included 282 from diarrhœa, 130 from scarlet fever, 64 from whooping-cough, and 52 from measles. The annual death-rate from the principal zymotic diseases averaged 4·3 per 1000 in the twenty towns, and ranged from 0·0 and 1·2 in Plymouth and Norwich, to 8·1 and 12·8 in Leicester and Hull. Scarlet fever showed excessive fatality in Hull, causing 29 deaths, against 7 and 23 in the two preceding weeks; this disease was also fatally prevalent in Nottingham and Leicester. Fever, principally enteric, was most fatal in Portsmouth and Hull. The death-rate from diarrhœa showed a further general decline, and was highest in Leicester and Birmingham. Small-pox caused 37 more deaths in London and its suburban districts, 2 in Liverpool, and 1 in Oldham; no fatal case was recorded in any of the seventeen other towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had steadily declined from 1644 to 647 in the eleven preceding weeks, further fell to 587 last week. The new cases admitted to these hospitals during the week were 95, also showing a decline from recent weekly numbers.

The deaths referred last week to diseases of the respiratory organs in London declined to 141, from 148 and 153 in the two preceding weeks, and were 3 below the corrected weekly average. The causes of 51, or 1·8 per cent., of the deaths in the twenty towns last week were not certified either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths in the nineteen provincial towns was more than three times as high as that recorded in London. All the causes of death were duly certified in Brighton, Portsmouth, Norwich, Bristol, Nottingham, and Sunderland; the proportion of uncertified deaths was largest in Hull, Sheffield, and Newcastle.

HEALTH OF SCOTCH TOWNS.

The annual death-rate last week in eight of the largest Scotch towns, with an estimated population of about a million and a quarter persons, was equal to 17·4 per 1000, showing a further decline from the rates in the three preceding weeks, which were 21·1, 18·9, and 17·8; this rate was 1·7 below the average rate that prevailed in the twenty English towns last week. The rates in the eight Scotch towns ranged from 8·4 in Leith and 14·8 in Edinburgh and Aberdeen, to 20·0 and 26·1 in Glasgow and Paisley. The deaths referred to the principal zymotic diseases in the eight towns were 74 last week, of which 25 resulted from diarrhœa, 18 from diphtheria, 12 from scarlet fever, 10 from whooping-cough, 5 from "fever," 3 from measles, and 1 from small-pox. The annual death-rate from these zymotic diseases averaged 3·2 per 1000 in the eight towns, and was 1·1 below the mean rate from the same diseases in the twenty English towns. This zymotic rate ranged in the Scotch towns from 2·2 and 2·7 in Dundee and Edinburgh, to 3·7 and 3·8 in Paisley and Greenock. The 25 fatal cases of diarrhœa in the eight towns showed a decline of 14 from the number in the previous week; the death-rate from this disease was again considerably below that which prevailed in the English towns. The 18 deaths referred to diphtheria showed a further increase upon recent weekly numbers, and included 12 in Glasgow (against 10 in the previous week), and 2 in Dundee. Of the 12 fatal cases of scarlet fever, which showed an increase of 5 upon the number in the previous week, 5 occurred in Edinburgh, 4 in Dundee, and 3 in Glasgow. Five of the 10 deaths from whooping cough were returned in Glasgow. The deaths referred to typhus, enteric, or simple fever, which had been 11, 9, and 2 in the three preceding weeks, were 5 last week, and included 3 in Glasgow and 2 in Edinburgh. The death-rate from "fever" in the Scotch towns last week was equal to 0·19 per 1000, and was lower than that which prevailed in the twenty English towns. The fatal case of small-pox was of an adult male in Edinburgh, recently arrived from London; he was reported to have been twice vaccinated in childhood. The deaths referred to acute diseases of the lungs (bronchitis, pneumonia, and pleurisy), which had been 87 and 76 in the two preceding weeks, declined last week to 52, and were lower than in any previous week of this year; they were equal to an annual rate which, however, somewhat exceeded that which prevailed from the same causes in London.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been equal to 22·2 and 15·5 per 1000 in the two preceding weeks, rose again to 21·2 last week. During the eight weeks ending last Saturday,

the average death-rate in the city did not exceed 20·2, while it was equal to 22·9 in London. The 142 deaths in the city last week showed an increase of 38 upon the low number in the previous week, and included 21 which were referred to the principal zymotic diseases, of which 12 resulted from fever (typhus, enteric, and simple), 7 from diarrhœa, and 2 from scarlet fever. The annual death-rate from these zymotic diseases was equal to 3·1 per 1000, whereas the rate from the same diseases was equal to 4·0 in London and 2·7 in Edinburgh. The 12 deaths referred to "fever" showed a marked increase upon the numbers in the four preceding weeks, and were equal to a rate which was more than seven times the average rate from the same cause in the twenty English towns. The 7 fatal cases of diarrhœa in Dublin showed a decline of 2 from the number in the previous week, and were proportionally less numerous than those recorded in the English towns. Infant mortality showed a decline last week, while the deaths of elderly persons were considerably more numerous.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

THE STATE OF THE THAMES.

In the general report of the Conservators of the Thames for the year 1880, recently published as a Parliamentary paper, it is stated that with the object of preventing pollution of the river a rigid inspection over the stream, and over its tributaries within ten miles of the Thames, has been maintained. The sewage works at the various places above the intakes of the Water Companies having been completed, the sewage formerly discharged directly into the river has been diverted. In the event of any defect in the action of these works being discovered, legal proceedings are, if necessary, immediately taken, to cause the defect to be remedied. On the tributaries it would appear many offensive and injurious discharges have been stopped, and several local authorities and other persons are now under the notices required by the Conservancy Acts to discontinue the flow of sewage and of offensive and injurious matter into the affluents of the river. Should it be found that legal or other difficulties impede the action of the Conservators in carrying out the complete purification of the tributaries, the Conservators are prepared to apply to Parliament for such addition to their powers as may be deemed necessary to secure the purification of the tributary streams. During hot weather complaints reach the Conservators of the pollution of the river below the metropolitan district. The complaints relate to the offensive odour arising from, and a highly-discoloured state of, the water there. "It must be remembered," say the Conservators, "that Kingston and Richmond, and other places below the intakes of the water companies, still pass their sewage into the river, the penalties for doing so having been suspended by the Legislature to give time for overcoming the difficulties of carrying out a complete sewage system for this district. Although the discharge from these places may in some degree affect the purity of the river near the metropolis, it can hardly be doubted that the chief cause of the polluted state of the river within and below the metropolis arises from the discharge at the outfalls and storm outlets of the Metropolitan Board of Works, in whose district ordinary sewage is exempted from the provisions of the purification sections in the Conservancy Acts."

SMALL-POX IN NEW SOUTH WALES.

The New Zealand correspondent of the *Colonies and India* writes from Auckland, under date July 19th, as follows:—"The outbreak of small-pox at Sydney, and the consequent scare to the other colonies, has already done considerable damage to our trade. The Union Company's steamers, which leave Sydney for Auckland, are all quarantined, and in one or two instances, although there was no sickness on board, the passengers have been kept on the quarantine island, which is a short distance outside the harbour, for a period of several weeks. The quarters provided on the island are comfortless, and only three weeks ago Mr. Henry Fancourt, an English gentleman who was travelling for the benefit of his health, died in the quarantine barracks from dysentery, and public feeling inclined strongly to the opinion that his death was caused by defective arrangements and unsuitable accommodation. The Government has been moved by the freely-expressed indignation of residents here to take steps towards providing more comfortable quarters for those who may be unfortunate enough to be isolated on Notuihi. The detached squadron, with the Royal Princes, is expected here about a fortnight hence, and will be quarantined unless the trip from Sydney shall have occupied more than twelve days. As an instance of the loss sustained by Auckland alone through these quarantine arrangements, I may mention that the Union Company's steamers take in their coal at Newcastle, N.S.W., instead of at the Bay of Islands (Auckland), and it is estimated that the decrease in the output at these mines in consequence is fully 2000 tons per month."

THE LONDON WATER-SUPPLY.

Col. Bolton, R.E., the water examiner, in his report for the month of July, states that during the whole of the month the water of the Thames at the intakes of the Water Companies taking supplies from the stream was, before filtration, good in quality. The water in the river Lea was also good. Professor Frankland notes inefficient filtration of the West Middlesex, Grand Junction, and Lambeth supplies, but that the chemical quality of the water distributed from the different companies deriving their supplies from the Thames was very much above the average quality. "The Lea water," it is added, "distributed by the New River and East London Companies, was also of decidedly better quality than usual; both were efficiently filtered, and the New River Company's water was, in point of chemical purity, second to none but the best of the deep well waters, while that of the East London Company was superior to any of the Thames waters."

VACCINATION AND SMALL-POX IN SCOTLAND.

The Registrar-General of Scotland has just issued his report upon the vaccination of children born in Scotland during the year 1879. The Compulsory Vaccination Act in Scotland continues to work satisfactorily, in proof of which it is asserted that in the whole of Scotland there was, during 1879, only one case of refusal to carry out the provisions of the Act. After deducting the cases of infants that died before attaining the usual age for vaccination, it appears that more than 96 per cent. of the children born in Scotland during 1879 were successfully vaccinated. The vaccination was postponed in one per cent. of the cases, and 0·5 per cent. of the cases were declared insusceptible of vaccination; while rather more than 2 per cent. had removed before vaccination, or were otherwise unaccounted for. The proportion of cases unaccounted for scarcely differed from that which prevailed in the preceding year, and was slightly below the average proportion in the ten years 1869–78. With reference to the 2492 children for whom certificates for successful vaccination had not been received, it is presumed that the majority are still unvaccinated, although in many cases the children are known to have been successfully vaccinated. It is evident that compulsory vaccination is more completely carried out in Scotland than in England. This is probably mainly due to the absence of organised opposition to the operation in Scotland. Since 1874 Scotland has been remarkably free from fatal small-pox, and during the six years 1875–80 the annual deaths from this cause have scarcely averaged 30. The detailed annual reports for the three years 1878–9–80 have not yet been issued by the Registrar-General of Scotland, but it is estimated from the ascertained small-pox deaths in the eight principal towns that the deaths from this cause in the whole of Scotland in the three years did not exceed 24. Such immunity from small-pox has not previously been on record.

The question of water-supply at Evesham, which has been under consideration for nearly ten years, was settled on August 24th by the adoption by the Town Council of a scheme of gravitation from a valley in the Broadway Hills, six miles distant, at an estimated cost of about £10,000.

UNQUALIFIED PRACTICE.—A man named Thompson was recently charged at the Southwark Police Court with falsely representing himself as a medical practitioner, and with having by such representation obtained a sum of 14*s*. The evidence adduced was, in the opinion of the sitting magistrate, sufficient to warrant him in committing the accused for trial. Mr. Bridge, however, consented to take bail in £50 for the appearance of defendant at the Surrey Sessions.

Correspondence.

"Audi alteram partem."

THE INSANE IN PRIVATE DWELLINGS.

To the Editor of THE LANCET.

SIR,—That your columns are ever open to the fair discussion of any method of treatment likely to be serviceable for the public weal is a recognised fact, and it therefore must be most gratifying to those who take an especial interest in the care of the insane in private dwellings—or, as I like to call it, "the domestic treatment of insanity"—that this subject has now a chance of being brought before the public, and allowed an opportunity of its merits being thoroughly tested, and the means of its effectual and practical working being fairly discussed.

It seems to me, when such men as Drs. Bucknill, Crichton Browne, Lockhart Robertson, and Maudsley unhesitatingly state their entire approval of this plan of treatment in many cases of insanity, and go so far as to show by statistics not only the chances of cure by this method as against asylum treatment, but also of the untold blessing this "household harmony" is to many a chronically insane patient, that we need not have individual cases brought before our notice to prove the efficacy of this truly necessary mode of treating many persons whose exaggerated eccentricities, let us say, have rendered their sojourn with their own relatives a thing of impossibility.

Rather have we to endeavour to pull this much-to-be-desired method out of that mire of opprobrium into which it has been dragged by, to my mind, the evil of allowing any person, whether fit or unfit, to take charge of an insane patient simply and solely for the sake of adding so much to his yearly income, and with in many cases no particle of true interest in the psychological features of the case, and no desire on his part for a possible rapid and permanent improvement taking place. We all know in what light the Commissioners in Lunacy look upon the individual treatment of insanity; and the reasons for their opinion are not far to seek. Some persons, I know, say that this simple system gives them so much trouble, and hence their objection to it; but I feel certain that the reason they honestly give is the real and true one—viz., that they get more complaints connected with this system than with any other.

Now comes the grave question: How is this state of things to be rectified? Surely there are many good men who are wishful and willing to undertake the private charge of single cases, and whose houses are fit and proper places for such a charge; and it seems to me that the only plan we have of bringing this recognisable means of treatment into the prominent position its efficacy justly demands is by allowing no person to take charge of any individual case without a licence. This licence might be obtained at petty sessions at which some magistrates are sure to know, or at least could easily find out, not only the character of the applicant, the situation of his house and its internal structure, but also his probable fitness or otherwise for the duties devolving upon him. They would also be able to keep a watchful eye and lend an ever-ready ear to any complaints that might eke out with regard to any mismanagement; and thus greater care would be ensured to the patient, and greater fairness be done to those medical men, of whom there are many, who truly desire to make the domestic treatment the grand weapon that it is in very many cases of insanity.

By this compulsory licensing of individual houses we should achieve two ends: 1st, the elimination of those utterly unsuitable persons who seek to obtain an insane patient rather for their own pecuniary advantage than for any benefit that might accrue to the patient himself; 2nd, any neglect or improper conduct would entail the forfeiture of the said licence, which licence would thus be a real surety or guarantee of their good behaviour. This licence would also be a fair security to the relatives of patients who were on the look out for a suitable house as to the general fitness of the medical man for their charge and care.

It might be urged that such an alteration of our existing laws would entail more labour upon the Commissioners in Lunacy and the magistrates; but I am firmly convinced that men who have discharged their duties so faithfully would never raise any serious objection to such a change if otherwise found worthy of adoption.

Finally, it might be urged that the relative of a patient might object to his being sent to a house that was licensed, but I venture to think that the solid reasons given here should outweigh any sentimental objections.

I remain, Sir, your obedient servant,

LIONEL A. WEATHERLY, M.D

Portishead, Somerset, Aug. 28, 1881.

To the Editor of THE LANCET.

SIR,—I am pleased to find that my letter published in your issue of the 20th inst. has caused several of my brother practitioners to bear testimony to me and to you that they also have witnessed excellent and speedy curative results from the domestic treatment of insanity.

It is all-important, I believe, in incipient cases of mental attack, promptly to remove the patient from injurious surroundings; but it by no means follows that a mind trembling in the balance should at once be consigned to an asylum; and so, in reality, it practically comes to this, that dangerous delays occur, and too often disastrous consequences ensue, from crass ignorance how best to act.

Out door treatment might be probationary on the one hand for incipient cases, experimental on the other after prolonged seizures, and would be a great boon to many chronic sufferers who, though indubitably insane, are really harmless, and quite capable of enjoying life in a well-regulated and cheerful home.

In cases of a somewhat questionable nature I have found it convenient to try residence in apartments only, at the outset, with an attendant; and then, when society and companionship were deemed desirable, to take the patient into my own house.

Some twenty years ago, I remember, an eminent physician wrote a series of papers in the medical journals very strongly advocating the establishment of Maisons de Santé, where supervision could be exercised without entailing loss of liberty, or the pains, penalties, and vexatious formularies following in the wake of lunacy certificates; for as matters now stand the patient must be either dubbed insane at the outset, or run the risk of continuous out-door treatment by a practitioner whose general line of work hardly fits him for the undertaking, if his professional engagements would allow of it. I remain, Sir, your obedient servant,

Lowestoft, Aug. 29th, 1881. H. GRAMSHAW.

NOTIFICATION OF INFECTIOUS DISEASE.

To the Editor of THE LANCET.

SIR,—I observe in your present issue a letter signed "H," from Reading, in which it is stated that "the Reading Corporation have got inserted in their new Act just passed a clause making it compulsory on any medical man attending a case of infectious disease to at once report it to the medical officer of health. No mention is made of a fee to be paid for the information." Your correspondent's statement is entirely incorrect, for the very clause (82) that renders the notification compulsory provides also for the payment of a fee "to every registered medical practitioner who shall in pursuance of this section duly make and give such certificate or declaration."

Your correspondent goes on to say "It is questionable whether it would not have been more in accordance with the opinion of the profession at large to have thrown the duty on the householder, and not on the medical attendant."

It is clear your correspondent can never have seen or read the Act he criticises, for the opening words of Clause 82 impose the duty of giving information upon "the occupier or person having control" of the building in which the disease occurs. The same clause further on provides that the medical attendant shall *also* give notice, and is in fact merely a copy of similar clauses already existing in several local Acts. Were the duty imposed on the householder alone, it would be constantly evaded; and in the various local Acts now extant throughout the kingdom, in nearly every case the medical practitioner is required either to give a certificate to his patient, who forwards it to the sanitary authority, or the medical man gives notice privately to the health officer. This latter plan is in my opinion the best, for *the householder*

being also at the same time bound to give notice, the medical attendant need not appear in the matter at all, merely sending his notice privately to the health officer. It is to be regretted that your correspondent "H" should have failed to sign his name to his erroneous statements; and before blaming the Reading authority it would have been better for him to have read their Act.

I remain, Sir, yours, &c.,

JOHN SHEA, A.B., M.D.,
Physician to the Royal Berkshire Hospital, and Medical Officer of Health for the Borough of Reading, &c.

Reading, Aug. 27th, 1881.

CONSULTATION WITH HOMŒOPATHS.

To the Editor of THE LANCET.

SIR,—Your editorial remarks on this subject in last week's LANCET illustrate the truth of what I said in the corresponding number of the *British Medical Journal*, that the unfortunate utterances of Dr. Bristowe and Mr. Jonathan Hutchinson had placed the British Medical Association in a false position. It is certainly not true, as you suggest, that in the Council of that Association, to which Mr. Gamgee and myself belong, any such deep and well-concerted scheme with reference to homœopaths has been hatched. I agree with you that the mode of raising the question adopted is most unsatisfactory; but it is still open to the Committee of Council (the body which selects the readers of addresses) to repudiate all responsibility for individual utterances, and failing this, the Council, the only really representative body in the Association, can be appealed to. In the last resort, a special meeting of all the members could be called; and I fully believe it would then be found that the Association would give forth no uncertain sound.

Your obedient servant,

August, 1881. H. NELSON HARDY.

To the Editor of THE LANCET.

SIR,—With due submission to the authority with which Dr. Syer Bristowe and Mr. Hutchinson speak, and some others of equal standing act, I venture to dispute their arguments. Dr. Syer Bristowe argues that consultation with a homœopath is proper, because he is the weaker vessel, and therefore we should

"Be to his faults a little blind,
And to his virtues very kind."

Will the homœopath acknowledge such inferiority? Does he not esteem his creed as that of progression? It seems to those of ordinary faith that the homœopath displays his self-taken title as a flag of defiance, just as a pirate does; and therefore he should be treated as a pirate.

It is generally admitted that the fixed data in the art of therapeutics are few and uncertain. The homœopath asserts the contrary, calls on the unlearned and ignorant to believe in his theory, and hoists his flag not for the advancement of science but for the filling of his pocket. Mr. Hutchinson would separate surgery from medicine, and divorce those which should be indissolubly joined together. Yet Mr. Hutchinson writes on purely medical topics as gout, rheumatism, skin disease, &c. The question between the homœopath and the ordinary medical practitioner is ethical. The science of medicine is advanced by honest work—is retarded by unproved theories, however specious to the unwary. The practice of medicine will have no true light thrown on it by will-o'-the-wisp fires.

I am, Sir, your obedient servant,

August, 1881. H. F. S.

THE APOTHECARIES' SOCIETY.

To the Editor of THE LANCET.

SIR,—In your leading article of last week in reference to the motion I proposed—namely, "That it is the opinion of this meeting that the Apothecaries' Society of London should retain all the rights that it at present enjoys," you mention, truly, that I based it upon the great service done by the Society in the past. Why, then, ignore an Examining Body of proved and indisputable utility, whose present examiners are men of the highest position and attainments, for others of more recent date? I believe the title "Apothecaries" has more to do with the present change of opinion than aught else; for now that the Apothecaries' Society has ceased to be a trading body there can be no other excuse.

I am, Sir, yours truly,

August, 1881. J. WICKHAM BARNES.

IRELAND.

(From our own Correspondent.)

THE report of the President of the Queen's College, Cork, for the session 1880-81, has not yet been published, but I understand that the number of new students entered last session was 125 as compared with 105 in the year preceding; while the total number of students amounted to 327, or an increase of 27. The President regards the intermediate system of education as calamitous, having accomplished absolutely nothing for the interests of real education, as, indeed, the plan of paying boys for learning, instead of paying teachers to teach and to undertake the instruction of those who would voluntarily come forward, is in itself inimical to higher education, and is scarcely sufficient to induce any high promotion of knowledge, and of true education and mental development; but, on the contrary, degrades the whole public education of the country to an artifice of cram and examination. In the case especially of candidates for entrance to the medical profession, he remarks, who merely want to acquire enough to open the door of the College to them, the standard of knowledge acquired is very low; and in the case of sixteen of the boys whom the authorities were obliged to reject, most of them were extremely ignorant, and must have been neglected at school. To such a point has this proceeded that the schools no longer exist for any definite purpose, except, perhaps, to secure payment by results. There is no organisation or system, and its worst evils will be intensified when the examining edifice is crowned by an examining university introduced to provide for the wants of a new type of bread-scholars. The results of now feeding these institutions with students, crammed or neglected as the case may be, are, that when the youths enter the College they are so badly prepared in the ordinary instruments of thought, and in fact in nearly every element of school instruction, that it is a long time before they learn even how to work; so that the professor is either lecturing over their heads, or is compelled to hold back to wait for them. The examination fever, moreover, has so penetrated and invested their minds, that it has extinguished the very germs of enthusiasm for knowledge for its own sake, and left no thought for anything which does not directly "pay."

The promotion of a Veterinary College in this country has not been lost sight of, and great praise is due to Dr. Lyons, the member for Dublin, for his exertions in this respect. He has devoted considerable attention to the subject, and is endeavouring by every means to carry out the proposed scheme. Dr. Lyons has recently brought the matter under the notice of Parliament, and has been informed by Mr. Forster that it was under the careful and anxious consideration of the Government. Lord Aberdare's Bill has been amended by a clause which will provide examiners for the students of any Veterinary School that may be instituted in Ireland, but does not prevent the establishment of an independant licensing college in Ireland, which is much required.

The death-rate in Dublin last week was as low as 14·9 per 1000 inhabitants, and it can hardly be doubted that the gradual decrease which has recently taken place may be principally attributed to the removal of several hundred tenemental dwellings which were injurious to health. Great praise must be given to the indefatigable exertions of Dr. Cameron, superintendent medical officer of health, by whose energy and sanitary skill so much good has been effected, and so many unsuitable habitations have been swept away.

I may mention that Mr. William Mac Cormac, upon whom the honour of knighthood is to be conferred, is a graduate in medicine, a member of the Senate of the Queen's University in Ireland, and a Fellow of the Royal College of Surgeons in Ireland. He is also consulting surgeon to the Belfast Royal Hospital, of which town he is a native.

PARIS.

(From our own Correspondent.)

IN the Medical Department of the British Section of the International Exhibition of Electricity there is little to attract attention. Besides a combination battery with modified Leclanché elements by Coxeter, the only exhibits classed as medical appliances consist of chain batteries by one maker, some "magnetic" underclothing full of "odic" force by another, and a "rotatory magneto-electric brush" by a third. The French manufacturers make a much better show. Messrs. Brewer Brothers exhibit a galvanic battery constructed by them for Dr. Onimus, and which is not sufficiently known. Each element consists of an external glass cell, which receives in its upper half a zinc cylinder. This is connected by a copper wire with a disc of the same metal lying at the bottom of the next cell. Inside the cylinder, and resting upon the disc, is a glass tube closed below by a porous gun-wad. To set the battery in action the inner tubes are partially filled with coarsely-powdered sulphate of copper, and water poured into them, and into the outer cells to the upper margins of the cylinders. A modification of this element has been designed by Dr. Senre. Each cell is a U-shaped tube containing a plug of sponge in the bend. On one side of the sponge is a stratum of sand, and above this sulphate of copper. The other arm of the tube is empty. The metallic portion of the element is formed by a copper coil, dipping into the charged half, and connected with a zinc plate in the empty arm of the adjacent cell. As in the battery of Dr. Onimus, the addition of water puts the element in action. Another good galvanic apparatus is shown by M. Trouvé, but, besides its higher price, it has the disadvantage of requiring a skilled workman to re-charge it when once run down. M. Trouvé also exhibits his polyscope, an ingenious application of Planté's secondary cell to medical exploration. Practically the polyscope is most useful as a companion to the vaginal speculum, but it may be employed for the illumination of any other part. A modification in the arrangement of the platinum wire, which in the polyscope is the source of light, transforms the apparatus into a delicate galvano-thermic cautery suitable for operations in the auditory meatus, about the eyelids, or in any other region where a filiform instrument with the minimum of radiation might be required. In an adjoining room the Assistance Publique display all the electro-therapeutic resources of the Salpétrière. First there is an imposing cabinet, covered with wires, studded with screw-heads, fitted with the most elaborate means of determining current-strength, and capable of furnishing any kind of dynamic electricity at a moment's notice. Close at hand is a powerful static machine, a combination of the Carré and Holtz models, designed by M. Vigoureux. This apparatus is worked by a gas motor, and can evolve electricity enough for the treatment of six patients at the same time. Dr. Boudet de Paris shows a number of appliances for physiological and clinical research. A cardiophone, with experimental demonstrations on the batrachia twice a week; a sphygmophone and a myophone; an electric diapason, for the treatment of pain by mechanical vibrations; and a coil set in a wooden frame, and arranged to encircle the head, for the induction of the nervous centres. There are many other electro-medical exhibits both in the French and foreign sections, but the objects on view are, for the most part, too well known to require description. Perhaps the chief characteristics of the medical department are the number and variety of frictional machines, from which it may be gathered that an attempt is being made to restore Franklinism, partially at any rate, to its former favour.

An outburst of vaccinal syphilis is reported from Algiers. Fifty-eight recruits, belonging to the 4th Regiment of Zouaves, are said to have acquired the disease in this manner on the 30th of last December. The fact, which is probably greatly exaggerated, is likely to acquire much importance in the debate at the Chamber upon compulsory vaccination; and it is desirable that a thorough inquiry should be made into the affair.

M. Du Castel publishes the results of a new treatment of small-pox which has been largely tried by him at the Hospital St. Antoine during a severe epidemic. The method consists of the hypodermic injection of ether, together with the administration of opium and perchloride of iron by the mouth, and a liberal supply of alcohol. When the treatment is adopted early in the case, as soon as the initial symptoms are recognised, and before the occurrence of suppuration, the effect is said to be surprising: "attenuation and rapid evolution of the morbid symptoms; in most cases desiccation of the pustules before suppuration; arrested development of the pustules; absence of salivation, and convalescence from the sixth to the ninth day after the appearance of the eruption." M. Du Castel founds his opinion upon seventy-six cases of grave variola, with a mortality of thirteen during the period of suppuration. He recommends the injection of a cubic centimetre of ether twice a day, three or four grains of opium in the twenty-four hours, and twenty drops of the liq. ferri daily whenever there is haemorrhage.

Medical News.

UNIVERSITY OF LONDON. — The following candidates have passed the recent 1st M.B. Honours Examination.:

ANATOMY.

FIRST CLASS.

Prideaux, Frances Helen (Exhibition and Gold Medal), London School of Medicine for Women.
Wenyon, Edwin James, B.A., B.Sc. (Gold Medal), Guy's Hospital.

SECOND CLASS.

Targett, James Henry, Guy's Hospital.
Martin, Albert, Guy's Hospital.

THIRD CLASS.

Merrifield, Sydney Sargent, King's College.

PHYSIOLOGY AND HISTOLOGY.

FIRST CLASS.

Thorburn, William, B.Sc. (Exhibition and Gold Medal), Owens College.
Hind, Wheelton, Guy's Hospital.
Turner, Alfred Jefferis, University College.
Reynolds, Ernest Septimus, Owens College.
Thomson, Theodore, Univ. Aberdeen and University College.

SECOND CLASS.

Knight, Frederick, University College.

THIRD CLASS.

Horrocks, William Henry, University College.
Targett, James Henry, Guy's Hospital.
Shore, Thomas William, B.Sc., St. Bartholomew's Hospital.
Wenyon, Edwin James, Guy's Hospital.
Cave, Edward John, St. Bartholomew's Hospital.

MATERIA MEDICA AND PHARMACEUTICAL CHEMISTRY.

FIRST CLASS.

Vann, Alfred Mason (Exhibition and Gold Medal), King's College.
Merrifield, Sydney Sargent, King's College.
Scharlieb, Mary Ann Dacomb, Madras Medical College and London School of Medicine.

SECOND CLASS.

Gostling, William Ayton, University College.
Shore, Thomas William, St. Bartholomew's Hospital.

THIRD CLASS.

Bailey, Charles Frederick, St. Bartholomew's Hospital.
Knight, Frederick, University College.
Short, Thomas Sydney, King's College.
Cave, Edward John, St. Bartholomew's Hospital.

ORGANIC CHEMISTRY.

FIRST CLASS.

Hind, Wheelton (Exhibition and Gold Medal), Guy's Hospital.
* Thorburn, William, Owens College.

SECOND CLASS.

Targett, James Henry, Guy's Hospital.
Meyer, Charles Hartvig Lomo, Guy's Hospital.
Tomlinson, Emily, London School of Medicine for Women.

* Obtained the number of marks qualifying for a Medal.

BRITISH MEDICAL SERVICE. — The following is a list of candidates who were successful for appointments as Surgeons in this Service at the competitive examination in London on Aug. 15th:—

	Marks.		Marks.
Reid, N. M.	2580	Jerome, J. W.	1920
Lewis, W. H. P.	2325	Pike, W. W.	1875
Dick, W.	2298	Fitzgerald, M. E.	1870
Jencken, F. J.	2141	Truefitt, L. H.	1870
Stuart, H. O.	2125	Irwin, J. M.	1855
Treherne, F. H.	2105	Nealon, P. J.	1850
Lougheed, S. F.	2100	Wight, E. O.	1840
Haslett, J. C.	2075	Morris, W. A.	1825
Barratt, H. J.	2065	Burton, F. H. M.	1810
James, H. E. R.	2025	Heath, J.	1805
Trevor, H. O.	1900	Nichol, C. E.	1805
Russell, A. F.	1985	Reckitt, J. D. T.	1805
Fayle, R. J.	1971		

INDIAN MEDICAL SERVICE.—The following gentlemen were successful at the competitive examination held at Burlington House on Aug. 15th and following days:—

	Marks.		Marks.
Young, L. T.	2702	Smyth, John	2175
Gibbons, J. R. ..	2610	Roe, R. B.	2125
Grant, D. St. J. ..	2410	Greany, H.	2015
Shand, G. J.... ..	2360	Kernan, J.	1965
Crawford, D. J. ..	2235	Youngerman, E. P.	1795

Twenty-nine candidates competed for ten appointments; twenty-seven were reported qualified.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Aug. 25th:—

Benson, Ernest Walter, Merton, Surrey.
Harris, Walter Thomas, Ipplepen Vicarage, Devon.

The following gentleman also on the same day passed the Primary Professional Examination:—

Turner, Alfred James, Charing-cross Hospital.

A NEW Infectious Disease Hospital has just been opened at Ipswich. The building can, on an emergency, accommodate thirty patients, besides affording facilities for the addition of huts.

ROYAL COLLEGE OF SURGEONS.—The Museum and Library of this institution will be closed for one month from Wednesday last for the annual cleaning and rearrangements, and will be reopened on Monday, Oct. 3rd.

THE new Infirmary at Bolton is said to be very near completion. The corner stone of the building was laid on May 1st, 1880, and the institution is expected to be opened on the 5th inst., on which occasion there will be an exhibition of works of art.

BEQUESTS AND DONATIONS TO MEDICAL CHARITIES. The sum of £6000 has been bequeathed to the Paisley Infirmary by the late Mr. James Clark, thread manufacturer. Of that amount £5000 is to be devoted to the relief of consumptive patients at their own homes, while the remaining £1000 is for the endowed funds of the institution. The Fishmongers' Company have voted £210 in aid of the maintenance and extension of the Brompton Consumption Hospital. Mr. T. J. Howell, formerly of Stroud, but who died at Clifton, Bristol, has bequeathed the sum of £2000, free of duty, to the Stroud General Hospital.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest.*

ACLAND, T. D., M.B.Oxon, M.R.C.S., L.R.C.P., has been appointed House-Surgeon to St. Thomas's Hospital.

BARTON, —, M.D.Dub., L.R.C.S.I., has been appointed Surgeon to the County Donegal Infirmary, vice Little, deceased.

BUTLER, H. P., M.R.C.S., L.R.C.P., has been appointed Resident Accoucheur to St. Thomas's Hospital.

CARPENTER, A. B., B.A.Oxon., M.R.C.S., L.R.C.P., has been appointed Assistant House-Physician to St. Thomas's Hospital.

CLEGG, W. T., M.R.C.S., L.R.C.P.Lond., has been appointed Senior Resident Surgeon to the North Staffordshire Infirmary, Hartshill, Stoke-on-Trent, vice G. Russell, M.B. &c., resigned.

COXWELL, C. F., B.A., M.B.Cantab., M.R.C.S., has been appointed House-Physician to St. Thomas's Hospital.

EDWARDS, J., L.R.C.P.Ed., M.R.C.S., has been appointed Surgeon to Her Majesty's Prison at Leeds.

FOWKE, F. W., L.R.C.P.Ed., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Chipping Warden District of the Banbury Union.

HOLBERTON, H. N., M.R.C.S., L.R.C.P., has been appointed Assistant House-Physician to St. Thomas's Hospital.

LEACH, J. C., M.D., B.Sc., S.Sc.C.Camb., County Analyst, has been appointed Analyst for the Borough of Shaftesbury.

M'NEILL, J. P., M.D.T.C.D., L.R.C.S.I., has been appointed Public Analyst for the Borough of Tiverton, vice Blyth, resigned.

MARLOW, F., M.R.C.S., L.S.A.Lond., has been appointed House-Surgeon to St. Thomas's Hospital.

MURRAY, —, M.B.Dub., M.R.C.S., has been appointed Medical Officer for the First District of the Pembroke Union.

PAGE, F. M., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Bilton District of the Roynsham Union.

PARSONS, F. J. C., L.R.C.P.Lond., M.R.C.S., L.S.A.Lond., has been reappointed Medical Officer of Health for the Bridgwater Rural Sanitary District.

REDMOND, I., L.R.C.S.I., L.S.A.Lond., has been appointed Honorary Surgeon to the Stockton Hospital, Stockton-on-Tees, vice W. B. Smith, resigned.

SAVILL, T. D., M.R.C.S., L.S.A.Lond., has been appointed House-Physician to St. Thomas's Hospital.

STODDART, M. F. W., has been reappointed Public Analyst for the City of New Sarum.

SUFFERN, A. C., M.D., has been appointed Assistant Medical Officer to the East Riding Asylum, Beverley, vice S. A. K. Strahan, appointed Assistant Medical Officer, Northampton County Asylum.

TURTON, J., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Heckmondwike District of the Dewsbury Union.

WELLS, A. E., M.R.C.S., has been appointed Assistant House-Surgeon to St. Thomas's Hospital.

Births, Marriages, and Deaths.

BIRTHS.

CLOUTING.—On the 30th ult., at Thetford, Norfolk, the wife of J. R. Clouting, M.R.C.S.E., of a son.

GOULD.—On the 29th ult., at 16, Queen Anne-street, W., the wife of Alfred Pearce Gould, M.S., of a son.

HINGSTON.—On the 21st ult., at Sussex-terrace, Plymouth, the wife of C. Albert Hingston, M.D., of a daughter.

HODSON.—On the 31st July, at Taraghur Sanitarium, near Ajmere, Rajputana, India, the wife of Robert D. Hodson, Surgeon, Army Medical Department, of a son.

ILIFFE.—On the 27th ult., the wife of Walter Iliffe, of a son.

MARTIN.—On the 29th ult., the wife of Henry A. Martin, M.D., late Army Medical Department, of The Lodge, East Cosham, Hants, of a daughter.

PLAYFAIR.—On the 28th ult., at Rutland-street, Edinburgh, the wife of John Playfair, M.B., F.R.C.P.E., of a daughter.

WAKLEY.—On the 30th ult., at Heathlands, Long Cross, Surrey, the wife of James G. Wakley, M.D., of a daughter.

MARRIAGES.

CASH—BRIGHT.—On the 24th ult., at Torquay, John Theodore Cash, M.D., resident of London, to Margaret Sophia, youngest daughter of the Right Honorable John Bright, of Rochdale. No cards.

LUNN—NORTHCOTT.—On the 25th ult., at St. Mary's Church, Ealing, by the Rev. Herbert Lunn, B.A., Vicar of Christchurch, Wakefield, brother, and the Rev. Henry Martin, B.A., of St. John's, Sunderland, brother-in-law, of the bridegroom, assisted by the Rev. E. W. Relton, M.A., Vicar of Ealing, John R. Lunn, L.R.C.P.Lond., M.R.C.S.E., L.S.A.Lond., Chief Medical Officer of St. Marylebone Infirmary, third son of W. J. Lunn, M.D., of Hull, to Ida Maund de P., second daughter of W. C. Northcott, M.A., of Rochester House, Little Ealing.

LYONS—SEYMOUR.—On the 31st ult., at St. John Baptist's Church, Staveley, Derbyshire, by the Rev. J. Magens Mello, M.A., Rector of St. Thomas, Brampton, Surgeon-Major Richard Thomas Lyons, M.D., of the Bengal Medical Department, to Elizabeth, eldest daughter of the late Martin Seymour, Esq., of Staveley and Rodridge House, Heseldon, Durham. No cards.

MACKERN—KIDD.—On the 24th ult., at St. James's Church, Kidbrook, Blackheath, John Mackern, M.A.Cantab., second son of George Mackern, Esq., of Buenos Ayres, to Louie, second daughter of Joseph Kidd, Esq., M.D., of Brocklands, Blackheath.

NORTH—ST. JOHN.—On the 2nd ult., at Trichinopoly, Madras Presidency, John North, Surgeon, 6th Regiment M.N.I., to Annie Elphinstone, eldest daughter of Major F. C. St. John, 30th Regiment M.N.I.

ROOME—MCCREA.—On the 23rd ult., at Holy Trinity Church, Guernsey, Henry Abercrombie, eldest son of Henry Roome, Esq., of Lota, co. Cork, to Flora, eldest daughter of Lieut.-Colonel James McCrea, of Grange Villa, Guernsey.

DEATHS.

BAILLIE.—On the 27th ult., at Dover, George Olaus Baillie, late Surgeon-Major 6th Bengal Cavalry, eldest surviving son of the late George Baillie, H.E.I.C.S., aged 51.

BRADLEY.—On the 22nd ult., at Castle Green, Sandgate, William Henry Bradley, Esq., Retired Deputy Inspector of Hospitals, late of H.M. Indian Forces.

COWAN.—On the 24th ult., at Queen's Hotel, Upper Norwood, Dr. James Moffatt Cowan, of the late H.E.I.C. Service, and M.D., of Edinburgh.

PRALL.—On the 23rd ult., at Broadstairs, Samuel Prall, M.D., F.R.C.S.E., of Town Malling, third son of the late Richard Prall, of Rochester, deeply lamented, aged 46. Australian and New Zealand papers, please copy.

SKAE.—On the 25th June, at Wellington, New Zealand, Frederick W. A. Skae, M.D., L.R.C.S.E., F.R.C.S.E., Commissioner in Lunacy for New Zealand, third son of the late Dr. Skae, of Morningside, Edinburgh, aged 50.

TELFORD.—On the 25th ult., at the residence of his brother, 38, Longfield-place, Bury, Lancashire, John Campbell Telford, L.F.P. & S.G., L.R.C.P.Ed., L.M., of Whitefield, aged 33.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths*

BOOKS ETC. RECEIVED.

BAILLIÈRE, J. B., ET FILS, Paris.

Nouveau Dictionnaire de Médecine et de Chirurgie Pratiques. Tome Trentième.

BAILLIÈRE, TINDALL, & COX, London.

Deaf-mutism and the Education of Deaf Mutes by Lip-reading and Articulation. By Arthur Hartmann, Berlin. Translated and Enlarged by J. P. Cassells, M.D. pp. 224.

CHURCHILL, J. & A., London.

Throat Diseases and the Use of the Laryngoscope. By W. Douglas Hemming, F.R.C.S.Ed. pp. 129. With Illustrations.

The Ocean as a Health Resort. By W. S. Wilson, L.R.C.P.Lond., &c. Second Edition. pp. 351. With Map.

Dangers to Health. By T. P. Teale, M.A. Third Edition. pp. 170. Illustrated.

Tropical Dysentery and Chronic Diarrhœa. By Sir J. Fayrer, K.C.S.I., &c. pp. 404.

Notes on Midwifery. By J. J. Reynolds, M.R.C.S.Eng. pp. 134.

Davos Platz, and the Effects of High Altitudes on Phthisis. By Alfred Wise, M.D. pp. 74.

The Climate of the Undercliff, I.W., as deduced from Forty Years' Consecutive Meteorological Observations. By J. L. Whitehead, M.D. pp. 46.

LEWIS, H. K., London.

Indigestion, Biliousness, and Gout, in its Protean Aspects. Part I.: Indigestion and Biliousness. By J. Milner Fothergill, M.D. pp. 330.

What to do in Cases of Poisoning. By Wm. Murrell, M.D. &c. pp. 95.

Parasitic Diseases of the Skin, Vegetoid and Animal. By James Startin. pp. 88. With Illustrations.

A Treatise on Diseases of the Nervous System. By Wm. A. Hammond, M.D. Seventh Edition, Enlarged. pp. 925. With 112 Illustrations.

LONGMANS, GREEN, & Co., London.

Essays on the Floating Matter of the Air in relation to Putrefaction and Infection. By John Tyndall, F.R.S. pp. 338. With Engravings.

Country Pleasures: the Chronicle of a Year, chiefly in a Garden. By George Milner. pp. 345.

Annals of Chemical Medicine. Edited by J. L. W. Thudichum, M.D. Vol. II. pp. 334.

Elementary Treatise on Physics, Experimental and Applied. Translated and Edited from Ganot's Eléments de Physique by E. Atkinson, Ph.D., F.C.S. Tenth Edition, Revised and Enlarged. pp. 972. With 4 Coloured Plates and 844 Woodcuts.

LOW (SAMPSON) & Co., London.

Manual of the Principles and Practice of Operative Surgery. By Stephen Smith, A.M., M.D. pp. 660. Profusely Illustrated.

NEW SYDENHAM SOCIETY, London.

Lexicon of Medicine and the Allied Sciences. By H. Power, M.B., and Leonard Sedgwick, M.D. Fifth Part, completion of Vol. I.

SMITH, ELDER, & Co., London.

Manual of Dental Surgery and Pathology. By Alfred Coleman, L.R.C.P., F.R.C.S. (Exam.), L.D.S. pp. 342. With Illustrations.

TRÜBNER & Co., London.

Index-Catalogue of the Library of the Surgeon-General's Office, United States Army. Vol. II. pp. 990.

VAN VOORST, J., London.

Manual of British Botany. By C. C. Babington, M.A., F.R.S. Eighth Edition, Corrected throughout. pp. 455.

WILLIAMS, A. & Co., Boston, U.S.A.

History of Medicine in Massachusetts. A Centennial Address by Dr. S. A. Green. pp. 127.

G. Ciaramelli: Contribuzioni alla Terapia Clinica. La Contrattilità dei Capillari in relazione al due Gas dello Scambio Materiale; nuove Ricerche di Luigi Severini.—Liverpool Medico-Chirurgical Journal, July.—Etude sur l'Etiologie de la Variole et sur la Vaccination des Animaux; par le Dr. Charnaux. — Revue Militaire de Médecine et de Chirurgie, Juillet. — Leisure Hour, Sunday at Home, Girl's Own Paper. — Beiträge zur klinischen und operativen Glaucombehandlung; von Dr. med. Albert Mooren. — Application de la Dosimétrie au Traitement préventif des Accidents Puerpéraux; par le Dr. F. Paquet.—Hastings and St. Leonards-on-Sea as a Health Resort.—Physiological and Therapeutic Properties of Mineral Waters; by Dr. P. Kilian. — Health Preservation; by Richard Herring. — Trichinæ; by J. Phin. — The Squire. — What shall we do with the Inebriate? by Dr. T. D. Crothers. — Statistics of Amputations performed at St. Francis Hospital, Jersey City; by Dr. T. R. Varick. Symons's Monthly Meteorological Magazine, August.—The Sanitary and Constructive Supervision of Dwellings; by L. Angell, M. Inst. C.E. — La Saison d'Hiver à Rome; par le Dr. D. Toscani. — William Shakespeare, in Romance and Reality; by Wm. Thomson. (Sands and M'Dougall, Melbourne.)—Notes on Two Cases of Locomotor Ataxy treated by Stretching the Sciatic Nerves; by Dr. A. Davidson.—The Functional and Morphological Relations of the Cerebellum; by Dr. E. C. Spitzka. — Memorial to the Home Secretary on Vaccination Penalties; by Lord Clifton. — Index Medicus, Vol. III., No. 7. (Leypoldt, New York.)—Science Gossip, Sept.—Fraser's Magazine, Sunday Magazine, Good Words, Friendly Greetings. — The Uses of Country Hospitals; by G. W. Rigden. — On Anæsthesia; by David Drummond, M.D.

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Local papers containing reports or news-paragraphs should be marked.

We cannot prescribe, or recommend practitioners.

Lectures, original articles, and reports should be written on one side only of the paper.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

THE STUDENTS' NUMBER OF THE LANCET will be published on Saturday next, Sept. 10th. Those gentlemen holding official situations connected with Medical Institutions in the United Kingdom, who have not yet forwarded the necessary information to our Office for publication in that number, are earnestly requested to send it *without the delay of a single post.*

GAS IN THE ATMOSPHERE.

As the use of gas for cooking and heating purposes extends, it will be necessary to take new precautions against the escape of unconsumed gas into the atmosphere of houses and the streets. It is rare to find a gas-stove, even such apparatus as are in daily use at public institutions, without some of the burners stopped. Now the gas does not light as it issues from the partially blocked opening of a "stopped" burner, but it does issue, and escapes with the contained air of the oven into the atmosphere of the apartment. When a burner is imperfectly closed it is often impossible to ignite the minute stream of gas which issues as a fine interrupted current, but an appreciable quantity of gas will escape from such a burner, and in the course of a few hours poison the atmosphere of a sleeping apartment. Even a dangerous amount of gas may escape into a small room from a burner which is so far "turned off" that the gas "will not light." Coal gas in the atmosphere of a bedroom is deleterious in the extreme, and gas in an oven is apt to give the food cooked in it a most unpleasant flavour. Either a better class of fittings should be substituted for those in common use, or great care should be taken to see that the gas does not escape unawares.

An Old Practitioner (Douglas, Isle of Man) has omitted to enclose his card.

REMUNERATION FROM CLUB APPOINTMENTS.

To the Editor of THE LANCET.

SIR,—I would esteem it a favour if some of your readers who are connected with club appointments would give me some information respecting the usual amount of remuneration given for professional attendance and medicines to members of clubs, including their wives and families. In the district in which I practise there are two medical men besides myself, and each of us have a share of the club work. The following are some of the rules to which we have been submitting for some time past:—

1. The doctors to supply at their own expense all necessary medicines, excepting Epsom salts, senna, castor oil, cod-liver oil, quinine, and Gregory's mixture.

2. Rates of Remuneration:—1. Men whose wages are 20*s.* per week and upwards, 9*d.* per four weeks. 2. Men whose wages are 15*s.* per week and under 20*s.*, 8*d.* per four weeks. 3. Men whose wages are under 15*s.* per week, 7*d.* per four weeks. 4. Women, 4*d.* per four weeks. 5. Boys and girls not earning full wages, 3*d.*

3. The fee to be charged by the doctors for lying-in cases shall not exceed 10*s.* 6*d.* each.

The nature of the work in which the members are engaged is the manufacture of paper, which I undertake to say is by no means a healthy occupation. The men work every alternate week all night, and inhale a hot and impure atmosphere, which renders them subject to pulmonary affections.

I am, Sir, yours, &c.,

August 26th, 1881. M.D.

REMARKABLE TOLERANCE OF EXTENSIVE DISEASE.

DR. M'INTYRE, medical officer, Avoca Circle, Natal, sends us the following notes of the necropsy of an Indian female, who died rather suddenly about a week after, in a drunken brawl, she had received a cut on the head. She went to the manager of the estate, "and had her head dressed with some Friar's balsam," as he thought it only a scalp wound, and expected it to heal in a "few days." Two days before she died she had a fit. This was not reported to the manager, as it soon passed off, and it was thought to have been caused by the heat. "The manager asked me to make a post-mortem inspection of the body, and send the report of it to the proper authority, so that an investigation, judicially if necessary, could be made. I found on removing the scalp a semilunar slanting cut of about two inches transverse, and one inch and a half from front to back. On removing this piece of bone, about the size of a sixpence of the dura mater was exposed, but had not been cut. This spot was black. On removing the skull, the dura mater on the right half of the brain was vascular and healthy-looking, while that on the left side was covered with greenish-coloured lymph from front to back. On removing the membranes, the surface of the brain on the left side was, like the dura mater, covered with offensive-smelling lymph, and at the edge of the left side near the apex, and corresponding to the seat of the external wound, the brain substance for about three-quarters of an inch deep was softened and decomposed; the rest of the substance of the left side seemed healthy. The right side was healthy throughout; the cerebellum and ventricles were also healthy; heart normal; right lung healthy; left lung very much congested, in some places adhering to the pleura, and the pleura of the left side in all its extent adhering to the ribs; liver of a light brown, nearly straw colour, dotted over on the surface with irregular patches of a lighter colour; on section it looked darker in some places than others. Stomach and spleen healthy. Both kidneys seemed slightly congested. Both ovaries were much congested; in the left Fallopian tube, close to the ovary, was something like an abscess, about the size of a horse-bean, containing a few drops of what looked like pus. Uterus empty and small; the mucous membrane at the fundus much congested, and this continued partly into the substance of the organ. I think the woman undoubtedly died from the injury to the brain, but how she lived with such a left lung, liver, &c., and without complaining or looking sick, I cannot understand."

Constant Reader.—Yes, if the funds are forthcoming; not always otherwise. The address of the secretary is Miss Mary Lyall, 14, Nottingham-place, Dublin.

SUNSTROKE.

To the Editor of THE LANCET.

SIR,—*Apropos* of the correspondence now going on in your pages with reference to the above subject, its pathology, and treatment, the following notes of a case may be worth recording.

Recently, while in medical charge of one of the large Australian passenger steamships, and when passing through the tropics, I was summoned one evening to a member of the crew, who was reported very ill. I found the man (an assistant baker, previously robust and healthy) staggering outside the surgery door. In reply to a question, he muttered something incoherently, and at first sight had the appearance of one very much under the influence of alcohol. But he quickly became absolutely unconscious, and fell upon the deck. Pulse frequent and small; breathing rapid; pupils contracted; skin dry and very hot; temperature 103°. Had him removed on to the spar deck, applied ice to the head, sponged the face and neck with iced water, and gave him small quantities of it to drink. Took his temperature again, and found it 104·2°; a few minutes later it was 106·5°. We now undressed him and sponged the trunk and limbs with the cold water. His temperature, however, continued to rise to an alarming height, for in five minutes more it had reached 107·1°. Seeing this I at once ordered a cold bath, the preparation of which took three or four minutes, and by that time the thermometer in the axilla recorded the extraordinary temperature of 109·4°; pulse and respiration frequent. As quickly as possible we put him into the bath, the temperature of which was gradually lowered by the addition of considerable quantities of ice. At the expiration of twenty minutes his temperature had fallen to 101°, and ten minutes later it was 99·1°. The action of the heart during the immersion was not altered. He was now taken out of the bath, dried, wrapped in a sheet and blanket, and taken to a cool part of the ship. His respiration grew less frequent, but his pulse now became almost imperceptible at the wrist. Stimulants were accordingly given, and the pulse soon recovered itself. During the night, with the exception of occasional attacks of vomiting, he lay comfortably. Next day he was conscious, and his temperature normal. He complained of feeling "dizzy and weak," with loss of appetite, furred tongue, and constipation. I gave him five grains of calomel, put him on a light nutritious diet, and kept him quiet for five days, at the end of which time he resumed duty.

Whatever may have been the exact pathology of this case, there can, I think, be little doubt that the cold bath was the saving of the man's life.

I am, Sir, your obedient servant,

J. MORAN PRENDERGAST, M.R.C.S., &c.

Guy's Hospital, August 29th, 1881.

POOR-LAW FALSE ECONOMY DEFEATED.

IT is gratifying when penurious guardians, taking the occasion of a resignation of a medical office to reduce the salary, find no applicant for the vacant post, have to offer again the original salary, and to make, at the same time, confession that it never was too large. All this has happened at Axbridge, on the resignation of Mr. Wade. The guardians found themselves without a medical officer or the offer of one, and were obliged to rescind their economical resolution. We hope this instance will be noted by those who are always ready to take medical work on reduced and ignoble terms.

WORK DONE FOR A NEIGHBOUR.

A HAVING been sent for in B's absence by the patient, and being unacquainted with B, might in strictness keep either the whole of the fee or the half of it, and the patient too. But it would be more in accordance with professional usage and principle to hand both the fee and the patient over to B. Medical men ought to attend their own obstetric cases, but the most attentive man will occasionally be absent, and if an obstetric case transpires during a reasonable absence or a well-earned holiday, he thinks more of the kindness of a neighbour that attends the case for him than he would of the fee.

APPOINTMENT OF MEDICAL OFFICER OF HEALTH.

To the Editor of THE LANCET.

SIR,—I have held the appointment of medical officer of health for a small urban district for two terms of three years each up to May last. I then received notice that I had been reappointed for one year only. I wrote in answer, saying I thought it a slight, after my other terms being for three years, it should be now reduced to one. The Local Board replied, saying no slight whatever had been intended, but they would make it for three years, and forward to the Local Government Board for their sanction, who refused it, saying it was not their practice to confirm district medical officers as medical officers of health for longer than one year. I thought this very strange, as I had been district officer before taking the health appointment six years ago; so I made private inquiries, and this is what I wish to bring before your readers and the profession. It appears the inspector of nuisances had only been reappointed for one year, and therefore the Local Government Board would not sanction my appointment for a longer term, but if he had been appointed for three years, mine would have been confirmed; so now the length of our appointments must depend on that of the inspector of nuisances. This seems almost impossible to believe, but I had it from the best authority; it exhibits the amount of consideration the Local Government Board show to medical officers of health.—I am, Sir, yours truly,

August 24th, 1881. D. S. S.

VARIOLA AND VARICELLA.

To the Editor of THE LANCET.

SIR,—On looking over some back numbers of your journal, I noticed in your issue of September 20th, 1879, an article with the above heading and the addition of "a hard case;" and as one who has had considerable experience on the subject, I would venture to draw attention, through your columns, to that which I have found to be an infallible indication of the difference between the two diseases, and one which even an unprofessional eye can detect without the least difficulty.

In variola, whether the case has been vaccinated or not, the entire eruption is of the same date—i. e., it is all in the papular, vesicular, pustular, or desiccating stage, &c., not some portions of it in some of these stages at the same time.

In varicella, after the eruption has appeared, if only for four days, the distinction will be at once visible, by the disease appearing in a papular stage, while the first papules have passed into that of vesicles, and so on till in a week or ten days, if fresh crops appear, the whole four stages are seen at the same time.

In variola, whether the case has been successfully vaccinated or not, I have never seen these appearances. Much has been written about the modifications produced by vaccination when a successful case of vaccination subsequently suffers from variola, but the only modification I have ever noticed (and I have seen or received trustworthy reports of the two diseases, variola and vaccinia, passing through their various stages simultaneously, in 1865-66-67, to the extent of 169 cases) was that the variolous disease appeared, as a rule, in a milder type, and left fewer permanent cicatrices.

Varicella is a very common disease in this country, and at certain periods of the year, if the season is unfavourable—as, for instance, in the cold-weather months, when malarious fever is prevalent in the Mesopotamia of the Ganges and Jamnah,—it not unfrequently is attended, in the case of children, particularly among that vast proportion of them who are ill fed and worse clothed, with, comparatively speaking, a high rate of mortality. Though the native name for varicella is "khasra," yet from its close resemblance to small-pox it is usually called "chota mata," or little small-pox, and vaccination is not unfrequently blamed for not imparting immunity from a disease so very similar to that for which it is had recourse to—viz., small-pox.

I am, Sir, yours truly,

R. PRINGLE, M.D.,

Deputy Surgeon-Major, Sanitary Commissioner N.W.P.

August, 1881.

AURAL SURGERY IN THE UNITED STATES.

DR. JULIAN J. CHISOLM, Professor of Eye and Ear Diseases in the University of Maryland, U.S.A., in a clinical lecture published in the *Medical Journal* of that State, complains of the frequency with which medical practitioners in America neglect to practise syringing in cases of deafness which they are called upon to treat. Dr. Chisolm cites several instances of this omission, and remarks that the removal by him of plugs of cerumen has frequently elicited the profuse gratitude of patients who have travelled sometimes thousands of miles to obtain the relief which their ordinary attendant should have readily afforded.

STRANGE TITLES IN DENTISTRY.

OUR friends, the new race of dentists, are not yet deporting themselves with that severity in the use of titles which we are entitled to expect in registered and legally recognised practitioners. We are asked, for example, to explain or justify the following hieroglyphics on a brass plate not a hundred miles from Hammersmith:—"L.R.C.S. Lond., F.R.G.S., Dentist."

Mr. J. Gealt.—No more detailed account than that published in our columns is to be found. No photographs have been taken. He refuses to exhibit himself publicly, and has now left London.

Nemo should consult a surgeon.

COINCIDENCE OF ASTHMA AND URTICARIA.

To the Editor of THE LANCET.

SIR,—A case has come under my notice which may be worth recording, since it seems to have some bearing on the theory some hold with regard to asthma.

A chemist, about twenty-five years of age, subject for some years to asthma, got very wet a few days ago while travelling. Within a few hours he was suffering from a very severe attack of asthma, simultaneous with which was an intense eruption of urticaria, he being covered "from head to foot" with the rash, and "nearly choked" with the asthma. Both lasted rather more than two hours, and disappeared together.

I am, Sir, yours obediently,
G. A. HAWKINS-AMBLER, Medical Student.

Stanley House, Leeds, August 22rd, 1881.

Casuist.—Our correspondent's question and letter are very interesting and serious. His own appreciation of the casuistry of the case relieves us from any sense of difficulty. The intimate knowledge of a patient's moral history which often accrues to his regular medical adviser is one of the most sacred and confidential possessions of a medical man, not to be too glibly disclosed even to a consultant, though by no means to be suppressed if any medical good is to be done otherwise, the consultant being as deeply bound to secrecy as the regular adviser. We cannot say that the second illness necessitated a disclosure by A. B. of the specific disease contracted by B. C.; unless the cause of the fever or of recovery were irregular and seemingly disturbed in a way to be explained by the first illness, there was very much to be said for not alluding to it.

THE letter of *A Dublin Hospital Surgeon and F.R.C.S.I.* arrived too late for notice this week.

Accident Company.—We do not know.

QUEEN ANNE'S OCULIST.

To the Editor of THE LANCET.

SIR,—Whilst lately going through some early numbers of the *London Gazette* I came across a curious advertisement, of which a copy is given below, as it may interest the readers of THE LANCET, especially if we bear in mind that the *Gazette* is an official publication. It is well worth notice as showing how greatly professional etiquette on the question of advertising varied in Queen Anne's time from that of our own day. An equal change in feeling is shown in the announcement that Sir William's lady "performs the same cures." What would the profession say to such an announcement by a court physician of the present reign?

I am, Sir, yours truly,
W. P. W. PHILLIMORE, M.A.

Quality-court, W.C., August 29th, 1881.

"*London Gazette*, May 8th to 11th, 1714.—Sir William Read, Her Majesty's oculist-in-chief, and in that quality Sworn Servant in ordinary, his occasions call him from Oxford to Northampton, having several persons to attend in distempers relating to the eyes, where he will give his advice, and couch the poor of Cataracts gratis, every day for some time, at the Red Lyon, in Northampton, from the 22nd of May instant, and has well instructed his Lady, who performs the same cures and successfully couches Cataracts at his house, in Durham-yard, in the Strand, London, where his so much approved Stiptick Water is only prepared and sold by himself to prevent counterfeits that impose on the publick, which Stiptick has been approved on in the University of Oxford, where Sir William has cut and cur'd and restored many to Sight of Cataracts and others of the most difficult distempers relating to the Eyes."

TESTIMONY FROM OUTSIDE.

IN a sermon lately delivered at Penwortham, Preston, the vicar, the Rev. Canon Rawstorne, referring to sacerdotalism, gave utterance to a remark which is worthy of reproduction. We quote from the *Church of England Pulpit*:—

"It is patent to everybody that those professions which are doing a real work tolerate but little ceremonial. There was a time when the doctor of medicine had as many paraphernalia as a divine; and had a regular routine with all cases, like that ridiculed by Molière and Le Sage, curing, or perhaps killing, but always acting *selon les règles, secundum artem*. All that is quite gone. A doctor who tried to envelop himself in ceremony would be set down at once as a charlatan; as he would no doubt be. All medical subjects are submitted to the freest investigation: everything is reduced to bare scientific truth, and more reality."

INSTANTANEOUS INJECTION OF MORPHIA.

To the Editor of THE LANCET.

SIR,—I am deeply concerned in the welfare of one of my patients, who has unwittingly contracted the bad habit of indulging in morphia subcutaneously. For bad habit and indulgence the practice can now be considered, although its primary use was legitimate, and gave inexpressible benefit, most probably to the saving of life. However, now, by continuance, it has unfortunately become a habit, from which it is desirable to wean him, and, as I anticipate considerable difficulty, I would beg that any of your readers or communicants who have similar cases to cope with would kindly help me with their experience and suggestions.

I am, Sir, yours, &c.,
PUZZLED P.

August 22nd, 1881.

RIGHT ARM, WITH SCAPULA ATTACHED, DRAGGED CLEAN FROM THE BODY.

To the Editor of THE LANCET.

SIR,—The following similar case to that of Dr. Ellis Jones is recorded by Chesselden in his work on Anatomy:—

"Samuel Wood, a miller, whose arm, with the scapula, was torn off from his body by a rope winding round it, the other end being fastened to the cogs of a mill. This happened in the year 1737. The vessels being thus stretched bled very little; the arteries and nerves were drawn out of the arm. The surgeon who was first called placed them within the wound, and dressed it superficially. The next day he was put under Mr. Ferne's care at St. Thomas's Hospital, but he did not remove the dressings for some days. The patient had no severe symptoms, and the wound was cured by superficial dressings only, the natural skin being left almost sufficient to cover it."—I am, Sir, yours, &c.,

Rawtenstall, near Manchester, E. BUCKNILL, M.D.
August 25th, 1881.

Sigma.—Probably Messrs. Weiss, Strand.

A. B. C.—Mr. J. C. Meredith, one of the secretaries of the university 22, Upper Merrion-street, Dublin.

A. W. W.—The subject referred to in our correspondent's letter will receive our attention.

Vendor.—The advice of the "old-established practitioners" referred to is undoubtedly judicious.

THE VACCINATION ACT: A WARNING.

To the Editor of THE LANCET.

SIR,—I was fined on the 5th inst. in the Marylebone Police-court 20s. and 2s. costs because the vaccination certificate of the successful vaccination of my twelfth child was not received, as stated, by the vaccination officer. My child was born on December 21st, 1880; I vaccinated it on March 23rd, 1881, and posted the certificate myself on the 30th of the same month. Now, as I had fully complied with all the requirements of the Vaccination Act, I felt secure. In court I was told I could not be sworn, being the defendant; that I must produce a witness who could swear to seeing me post the certificate. That I could not do. I was then asked what proof I had that the child was vaccinated. I replied that I had the child in court. The magistrate informed me that he knew nothing about vaccination, and that I must produce a witness who could swear to it. Fortunately I had my daughter, who held the child when it was vaccinated, otherwise I would have had to pay another 10s. By the above ruling, every parent, to be free from the trammels of the law, must take care to have a witness present when the child is vaccinated, and also at the posting of the certificate, and be able, after the lapse of five months, to produce these two witnesses in court, or the law will convict. There is no such thing as a certificate being lost in transit or perchance mislaid at the office of the vaccination officer! Now, I ask, is this law? Is this justice? Is there no redress? It is a disgrace to justice that, after in every act conforming to the law of the country, I should be dragged into a police-court and fined, for the simple reason that I could not be sworn. I have since applied to the Home Secretary to remit the [illegible]ne. He replies that he regrets that he can see no sufficient reason f[illegible] interference with the decision of the magistrate.—I am, Sir, [illegible]s

[illegible] WILLIAM [illegible] M.R.C.S. Eng.

Inverness-terrace, Bayswater, W.,
August 17th, 1881.

430.—There must have been something special in the case referred to by our correspondent. We are informed that no such rule as that stated by him exists, and that exchanges are permitted under the regulations published in the War Office circulars unless there is some special reason for refusing them.

T. A.—We do not recollect the letter, and cannot at the moment trace it.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. J. Shea, Reading; Surgeon Hunt, Kurachi; Dr. E. Bucknill, Rawtenstall; Dr. Houghton, Sarawak; Dr. Gramshaw, Lowestoft; Surgeon-Major Cookson, Torquay; Mr. Milne, Bedminster; Mr. Wells, London; Dr. Weatherley, Portishead; Dr. Jones, Northampton; Dr. Lowe, King's Lynn; Dr. Bakewell, Hokitaka, N.Z.; Mr. R. Harrison, Liverpool; Dr. Sheldon; Dr. Philip; Mr. Haig, Torquay; Mr. Owens, Leamington; Mr. G. Holmes, London; Mr. Prendergast, London; Mr. Davies, Liverpool; Dr. W. H. Stone, London; Mr. Paramore, London; Dr. Gillespie, London; Mr. Galt, St. Boswells; Dr. Clement Dukes, Rugby; Mr. Phillimore, London; Mr. Nunn, Bournemouth; Dr. Neale, London; Mr. Brett, Watford; Mr. Urquhart, Edinburgh; Dr. Veale, Netley; Mr. Pruen, London; Mr. Fitzmaurice, Pontesbury; Mr. Winter, Wolverhampton; Messrs. Burroughs and Wellcome; Mr. J. G. Carruthers, London; Mr. Neal, London; S. Jones, London; Dr. Johnson, Leek; Dr. Gil, Malagar; Mr. Stilliard, Birmingham; Dr. J. Davy, Halifax; Mr. R. Brookes, London; Mr. R. Wallace, Glasgow; Dr. Cook, Manningtree; Dr. Paine, Stroud; Dr. Mackellar, Glasgow; Messrs. Macfarlane and Co., Glasgow; Mr. Woodhouse, Dublin; Dr. Inis; Mr. Mann; Mr. Walker; Messrs. Dawson Brothers, Montreal; Mr. William; Mr. Beckton; Mr. Phillipps; Mr. Coutts Mr. Fancourt; Dr. Hodson, Rajpootana; Mr. Male; Mr. Archer, Alnwick; Mr. Barnard; Mr. Whipple, Richmond; Dr. Atfield; Mr. Philipps, Exeter; Dr. Reid, Canterbury; Mr. Kingzett; Mr. Beal; Mr. Murrey, Holloway; Dr. Saul, Lancaster; Mr. Raine, Darlington; The Director-General of the Army Medical Department; A. W. W.; A Qualified Practitioner; One who has often unwittingly Practised Homœopathy; Sanitas; F.R.C.S.; A. R., Ipswich; Physician; Constant Reader, Southsea; Esprit de Corps; Eboracus; W. D. S.; R. W. W. G.; H. F. S.; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Jordan, Birmingham; Mr. Huggins, Malvern; Dr. Evatt, Selkirk; Mr. Field, London; Dr. White, Moneymore; Dr. Aspenhall, Darwen; Mr. Kerr, Glasgow; Mr. Jackson, Bradford; Mr. Woodman; Dr. Coombs, Castle Cary; Messrs. Hartill and Co., Willinghall; Mr. Midgley, Torquay; Mr. Kavanagh; Mr. Northcote, Ealing; Mr. Kennedy; Mr. Bryan, London; Mr. F. A. White; Mr. Thorpe, Boreham; Miss Cumberland, Hanbury; Messrs. Bingham and Co., Bristol; Mr. Garney; Mr. Reid, Canterbury; Messrs. Theakston and Co., Scarborough; Mr. Thomson, Luton; Mr. Hewett; Mr. Clouting, Thetford; Messrs. Hobson and Co., Berkhampstead; Dr. Lyons, Staveley; Mr. Mason, Carlisle; Dr. Allbutt, Leeds; Mr. Trubshaw, Henbury; Mr. Wilson, Liverpool; Mr. Macleod, Dalby; Messrs. Smith and Son, Manchester; Dr. Hulk, Stockton-on-Tees; Mr. Wall, Wigan; Dr. Maclachlan, London; C. O., Ealing; P. S.; Medicus, Stockton-on-Tees; Practice; M.D., Wragby; Surgeon, Northampton; G. C.; P. S.; X. B.; A. T. Z., London; Medicus, Bewdley; Medicus, Burton-on-Trent; Medicus, Liverpool; H. F.; F.; K., Worcester; Galen; Scott; M.D., Rotherhithe; R. W.; L.R.C.P., Leeds; Medicus, Blackburn; A. B. C.; W. E.; R. C. P., West Ham; Cambridge, Barnes; O. Z., Bristol; Spes, Newbury; A. B., Wellingboro'; R. S., Tavistock; Robertus, Pimlico; M.D., Birmingham; Medicus, Crewkerne; W. W. S., Brompton; &c., &c.

Asylum Journal, Herald of Health, Kensington News, New York Herald, Italian Times, Driffield Freeman, &c., have been received.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, Sept. 1st, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Aug. 26	29·42	W.	63	58	108	72	56	0·20	Cloudy
,, 27	29·75	N.W.	58	54	90	67	49	0·04	Fine
,, 28	30·12	W.	60	59	102	69	44	..	Fine
,, 29	30·02	S.W.	59	57	..	63	50	0·04	Rainy
,, 30	29·81	W.	60	58	101	70	54	0·47	Cloudy
,, 31	30·16	N.	54	51	81	58	48	..	Cloudy
Sept. 1	30·18	N.	49	52	..	49	48	..	Cloudy

Medical Diary for the ensuing Week.

Monday, Sept. 5.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS. — Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.
UNIVERSITY COLLEGE HOSPITAL.—Ophthalmic Department.—2 P.M., and on Tuesday, Thursday, and Friday, at the same hour.

Tuesday, Sept. 6.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, Sept. 7.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at 1 P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at the same hour.—Skin Department.—1.45 P.M., and on Saturday at 9.15 A.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN. — Operations, 2½ P.M.

Thursday, Sept. 8.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 2 P.M., and on Friday at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

Friday, Sept. 9.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, Sept. 10.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

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Agent for the Advertising Department in France—J. ASTIER, 67, Rue Caumartin, Paris.